

WEEK
AGO

BUSINESS WEEK

YEAR
AGO

START
OF WAR
1939



Davis and Byrnes — to hold-the-line order from Roosevelt, a hole-the-line order from Lewis (page 15).

In This Issue—

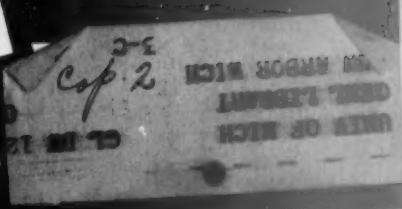
Our Stake in the
Pre-Peace Conferences

—A Report to Executives

BUSINESS
WEEK
DEX

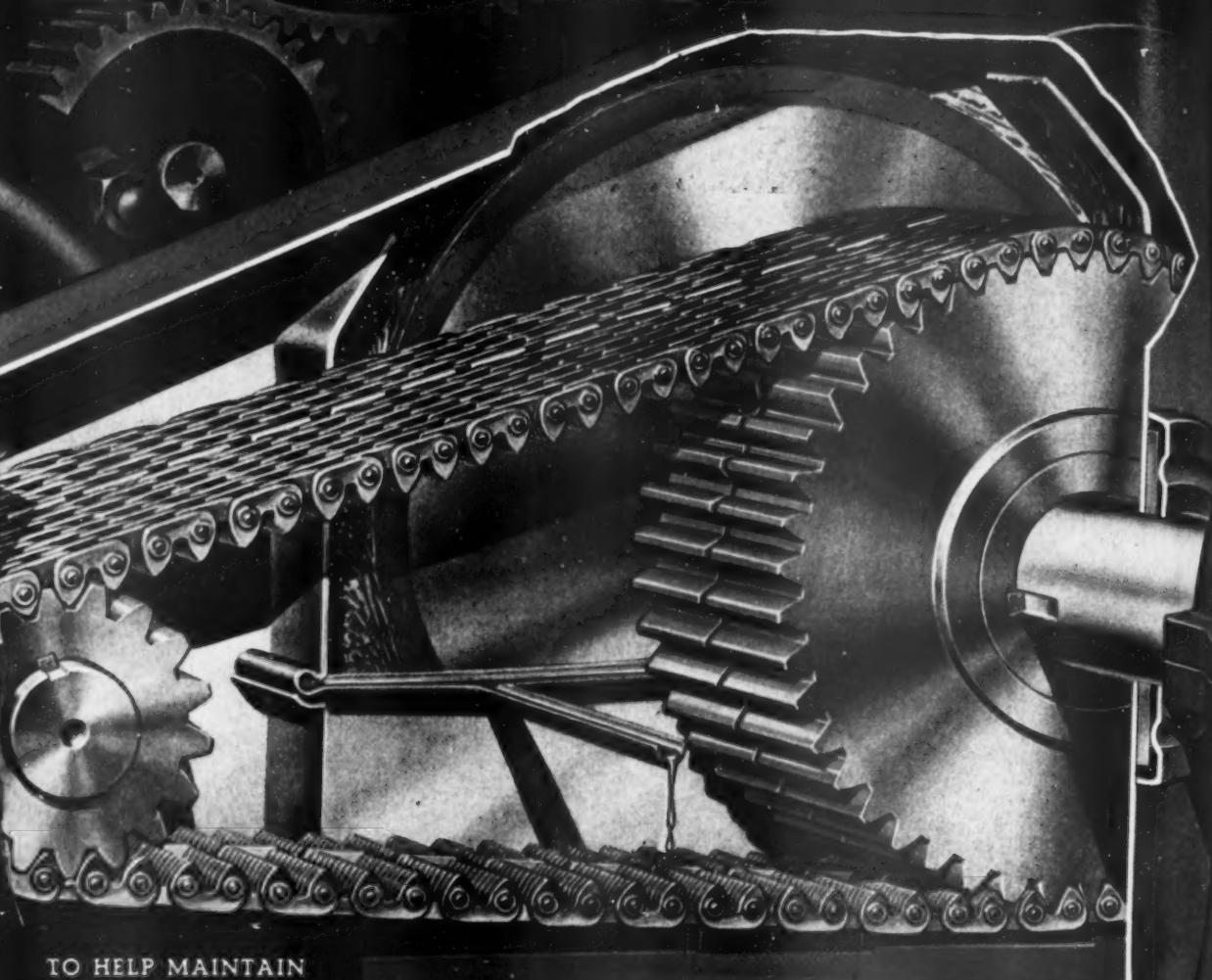
PUBLISHED

BY THE NEW YORK PUBLISHING COMPANY



This Chain "Gang" Really Got Tough!

WITH THE AID
OF THE
RIGHT OIL!



TO HELP MAINTAIN
CAPACITY PRODUCTION
CALL IN

SOCONY- VACUUM



for Correct
Lubrication

YOUR old bicycle chain was a puny cousin of the chain drive pictured above. This modern version can travel *a mile a minute* and carry loads no right-thinking machine designer dreamed of just a few years back.

That's plenty lucky for us all. For these chains take longer hours...faster wartime speeds in stride.

The secret of this success story—is *the oil you see dropping down!*

The oil lubricates the pins in the chain. But easier said than done. For the oil must be unusually thin to get between close-fitting parts...and unusually "oily," too.

Socony-Vacuum makes oils like that.

The existence of such oils allowed designers to create these modern "tough" chain drives!

The "know how" of the makers of Gargoyle lubricants—backed by 77 years' experience—can be of great value to *your* men in getting the most from the machines you have. Make full use of it!

SOCONY-VACUUM OIL CO., INC.—Standard Oil of New York Div. • White Star Div. Lubrite Div. • Chicago Div. • White Eagle Div. Wadham Div. • Magnolia Petroleum Co. General Petroleum Corporation of Calif.



We Borrowed Their "Nylons" to Make Tires for the Navy

typical example of B. F. Goodrich leadership in tires

THINGS are happening in the rubber industry.

New ideas are being born which serve rubber today—and will save money tomorrow.

In the B. F. Goodrich laboratories we're trying out dozens and dozens new methods of tire construction. For example, tires are being built with cotton cord—as well as of cotton or none. Nylon has such great strength that it is possible to build tires with rubber. Passenger car tires built with only two Nylon plies ran far longer than four-ply conventional type when tested for ply separation overload!

And bruise resistance is so great in plane tires made with Nylon cord that both the Army and Navy have placed orders for this new type tire

that saves weight and makes landings safer. B. F. Goodrich was the first company to make and deliver such tires to the U. S. Navy.

So the Nylon your wife is not getting in the form of hose is going to war. Some of it is being used in experimental work that may save thousands of tons of rubber. Perhaps one day you may be able to buy B. F. Goodrich Silvertowns for trucks with eight plies instead of twelve, that with weight reduced considerably will run cooler at high speeds—all because of today's wartime developments. Maybe, we say. For there are still many problems to be solved.

We do know that when this war is over B. F.

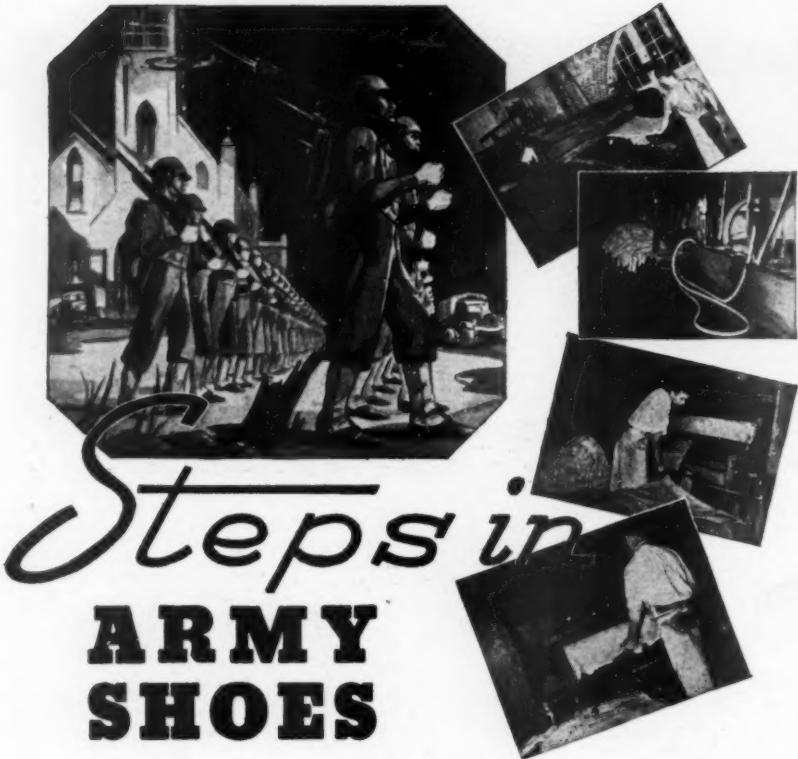
Goodrich will offer you far better tires than ever built before Pearl Harbor. Whether they are built with Nylon, rayon, or cotton cord, with crude or synthetic rubber, B. F. Goodrich will be first with the new mileage-saving, money-saving developments. In peace as in war, B. F. Goodrich will be "First in Rubber".



BUSINESS WEEK

WHERE TO FIND IT

Washington Bulletin	.....
Figures of the Week	.....
The Outlook	.....
General News	.....
War Business Checklist	.....
Report to Executives	.....
Aviation	.....
Production	.....
New Products	.....
Marketing	.....
The War—and Business Abroad	.....
Canada	.....
Labor	.....
Finance	.....
The Securities Market	.....
The Trading Post	.....
The Trend	.....



Steps in ARMY SHOES

THE hide of a calf or a Texas steer goes through many processes before it becomes a sturdy pair of army shoes. In tannery and shoe factory, these processing and manufacturing operations require experience and skill, machinery and special equipment. The rubber industry has always furnished certain indispensable equipment for the manufacture of leather and shoes. Great quantities of rubber hose are used in washing operations in tanneries. Rubber rolls remove hair and flesh from green hides. Rolls for finishing leather and other rubber rolls for splitting and cutting

leather to gauge are special tannery equipment. Transmission belting operates dyeing drums and various machinery. Rubber aprons fit on machines for applying top dressings, cushions on others for embossing finishes and, on still others, rubber rolls for polishing operations. Shoe factories use rubber conveyor belts, transmission belting for main power drive and for operating auxiliary machinery, and rubber hose for pneumatic controlled machines. Leather is another war industry with processes dependent on mechanical rubber products—products long familiar to Republic Rubber's organization.



able factor in helping to solve the accentuated maintenance problems of industry. The Distributor Emblem, which identifies the exclusive outlets for Republic Rubber Products, is your assurance of their qualifications to serve.

REPUBLIC RUBBER
YOUNGSTOWN, OHIO
HOSE • BELTING • MOLDED GOODS • DIVISION OF A PACKING • EXTRUDED PRODUCTS
LEE RUBBER & TIRE CORPORATION

THE PICTURES

Cover—Harris & Ewing; 14—International 15, 17—Acme; 18—Wide World; 19—national News; 37, 51—Acme; 53, 56—Soviet 65—Acme; 94—International News; 114—World; 122—Acme.

THE STAFF

Publisher, Willard Chevalier • Manager, Montgomery • Editor, Ralph Smith • Managing Editor, Louis Engel • Assistant Managing Editor, Clark R. Pace • News Editors, Richard Raymond A. Dodd (Illustration), Phyllis V. Foreign, John F. Chapman • Finance, Cobbs • Production, W. W. Dodge • Land Gerardi • Marketing, E. A. Grunwald (Washington) • Industry, Clarence Judd (Cleveland) • War Regulations, Richard M. Machol • Economics, Sanford S. Parker • Labor, M. S. Washington, Irvin D. Foos, Robert C. Stuart Hamilton.

Editorial Assistants, Brownlee Haydon (Associate Foreign Editor), John Hoffman, C. Arthur M. J. Montgomery, Margaret Timmerman, I. White • Statistician, Alice McFall • Life Ruth Wall.

Editorial Bureaus—Chicago, Arthur Vasington, Mary Richards • Detroit, Stanley Brans • San Francisco, Cameron Robert Washington, McGraw-Hill Bureau, Staff Correspondents throughout the United States, Canada, Latin America, Great Britain and Soviet Union.

District Managers—Atlanta, R. C. Mauldin; Boston, Nelson Bond • Chicago, Arthur Wardine, R. N. Whittington • Cleveland, DeGraff, S. D. R. Smith • Detroit, O. Crandall • Los Angeles, R. N. Phelan • York, H. E. Choate, J. R. Hayes, J. H. Son • Philadelphia, H. C. Sturm • San Francisco, J. W. Otterson • St. Louis, G. G. Sears.

BUSINESS WEEK • May 22 • NUMBER 116 (with which is combined *The Annalist and Magazine of Business*). Published weekly by McGraw-Hill Publishing Company, Inc., 1221 Avenue of the Americas, New York. EDITORIAL AND EXECUTIVE OFFICES, 330 W. 42ND ST., NEW YORK, N. Y. James H. McGraw, Jr., President; Howard Ehrlich, Executive Vice-President; Putnam, Treasurer; J. A. Gerard, Secretary. Allow ten days for change of address. Advertising address: Director of Circulation, McGraw-Hill Publishing Company, Inc., 330 W. 42nd Street, New York.

Subscription rates—United States, Mexico, Central and South American countries \$5 a year. Canada \$5.50 for a year. Entered as second class matter December 4, 1936 at the Post Office at Albany, N. Y., under the Act of March 1879. Return postage guaranteed. Printed U. S. A. Copyright 1943 by the McGraw-Hill Publishing Company, Inc.

WASHINGTON BULLETIN

WHAT THE WASHINGTON NEWS MEANS TO MANAGEMENT

Postwar Planning Goes Slowly

Postwar planning is slow getting under way in Washington. Most of the talk is coming from the outside, obviously intended to influence government thinking.

Practical men in Washington who have to deal with postwar issues on a day-by-day basis are taking a narrow view of their jobs. They are convinced that there are so many political and foreign imponderables in the postwar situation that any thoroughgoing advance preparation is impossible.

Too Many Imponderables

Yet it is no longer possible to dodge the issue in the handling of some current business. WPB, for instance, is now dealing with a sort of rehearsal of the postwar problem as a result of the cutbacks in munitions orders.

The necessity of shifting plants from munitions to some other kind of work would theoretically offer Ernest Kanzler, who's handling the job (BW—Apr. 17 '43, p5), a chance to experiment with the problems of reconversion to civilian production.

Actually, however, the problems of reconversion will depend on whether the war ends suddenly or tapers off, on how fast the Army is demobilized, on how much rebuilding of foreign industry we commit ourselves to, and on a dozen other unknowns.

Hence, the experimentation goes on, but it's limited to such narrow fields as the financial mechanics of terminating contracts, and to such technical points as whether a contract settlement is a claim against the government to be dealt with by the General Accounting Office or a contract cost to be negotiated by the procurement agencies.

Break for Contractors

Construction contractors have lean days in sight, and some of them are exploring the possibility of getting contracts to do maintenance and repair work on war plants. They are arguing at WPB that this would conserve manpower by making it unnecessary for each plant to keep a maintenance staff.

Last week, their arguments bore fruit in an amendment of Controlled Materials Plan Regulation 5 permitting an outside contractor to use the same rating in buying maintenance and repair materials that the plant would use if it bought them itself. Big remaining

difficulty is fear that plant unions will object, particularly since production workers are largely C.I.O., while contractors' employees are A.F.L.

Somervell's Boomerang

Almost universal skepticism is greeting the insistence of the Army's supply service chief, Breton B. Somervell, that, munitionswise, we haven't enough of anything. The general's vehement declarations that millions of soldiers are still short of equipment, that ships are sailing half empty for lack of goods to fill them are intended to prevent overemphasizing resumption of some civilian production.

But Somervell himself is going too

BACK TO THE A.F.L.

Arguing that John L. Lewis' request for readmission into A.F.L. wasn't much more than a bid for support in his showdown fight with the Administration (page 15), a minority on A.F.L.'s executive council blocked a pre-arranged move to roll out the welcome mat. Instead, the United Mine Workers' application for affiliation will go to a three-man subcommittee for study.

Leagued with William Hutchinson of the carpenters and other big building trades unions in an anti-Roosevelt bloc, Lewis would, if readmitted, effect a reorientation of the A.F.L.'s political position and end the leadership of William Green, Dan Tobin, and other New Deal faithfus.

To stave off such a possibility, the anti-Lewis group in the federation will fight his readmittance, charging that he is a disrupter, and they will take their ammunition from Lewis' statements of seven years ago, when he split the A.F.L. to launch the Committee for Industrial Organization.

In the end, however, the prospect of per capita tax collections from 500,000 miners will probably swing a federation majority into supporting the Lewis application. Like his last move that involved the A.F.L., the latest Lewis gesture will make deep wounds in the federation and is certain to be a boiling issue at its next convention.

far. He has nettled even some of his own production officers who feel that his approach throws aspersions on their success in getting out the goods.

Arms—for Anyone to See

Business men, to whom Somervell is chiefly talking, have seen too many acres-wide stockpiles of munitions around the country. They have noted too well the predominance of warehousing facilities in Army construction programs. They have had too many orders cut back to be impressed by the general's views.

The Basic Job Is Done

Actually, a new phase in the production push has been reached. Production is up with transportation.

Until in-transit inventories had been accumulated, ports equipped, rear bases and supply depots stocked, the demand for armament was practically unlimited. Now the need for production is based on what the ships can carry and the battlefields can consume.

No one can tell what a full-dress invasion might use up, but in many categories, it may prove to be less than present production rates or the peak rates due to be reached in four or five months. What military shortages are in prospect are in particular specialized items, not the major bulk stuff.

The Opening That Wasn't Held

When invitations to attend the formal opening this week of the new \$5,000,000 plant of Aviation Corp.'s liquid-cooled engine division in Toledo were suddenly canceled, the Washington rumor mill started grinding full blast.

Gossips had this much to go on: The opening wasn't postponed just because of construction delays; the plant is 90% complete and could be in production in no time at all, because the materials and machines needed to finish the job are now relatively easy. It also seemed perfectly obvious that neither labor nor management difficulties were holding up proceedings. Every sign seemed to point not just to deferment of the project but to outright abandonment of it.

Since aviation engine production is one war program that distinctly is not being cut back because armament requirements have been fulfilled, the only logical conclusion was that the services

When your truck stops running, will your business stop, too?

There's only one way to "keep 'em rolling" . . . Start today with regular, systematic Preventive Maintenance!



These are the grim facts:

Only 52,000 new trucks are left in the civilian pool. American business normally uses more than ten times that many each year.

There will be no more new trucks until many months after peace.

We are also up against shortages of replacement parts and of skilled mechanics.

For a year now the Office of Defense Transportation has urged *every* truck operator to adopt a system of *preventive maintenance*. Yet millions of trucks are without this care today!

What can you do about it?

Make certain your trucks get regular and systematic *preventive maintenance*. That is the only way to lengthen the life of a truck. It prevents failures *before* they happen. It consists of planned and scheduled inspections, adjustments and servicing.

Long before Pearl Harbor, the outstanding operators of large fleets of trucks used *preventive maintenance* to get longer truck life, fewer road failures and lower costs per mile. NOW it is imperative that *every* truck operator—even the owner of only one truck—adopt some system of *preventive maintenance*.

And today it is easy! Thousands of service stations and garages offer you a simplified plan based upon "big fleet" methods. They are equipped and ready

to give your trucks thorough *preventive maintenance* care.

How does it work?

Approximately each 1000 miles (depending on operating conditions) your trucks will receive complete lubrication, engine adjustments and inspections of tires, brakes, battery, etc. Provision is then made for repairs wherever they are needed.

At about 5000 miles, a more thorough check-up includes valve adjustment and ignition system overhaul. At approximately 15,000 miles, a still more exhaustive check-up includes lubrication of wheel bearings and *every moving part*.

The money you formerly set aside for depreciation and trade-in costs will

more than take care of all expenses for systematic and regular *preventive maintenance*.

Your trucks are essential to your business . . . and to the transportation system of America. It is your wartime responsibility to "keep 'em rolling." You can prevent breakdowns. Start today . . . make arrangements for your truck to get *preventive maintenance*!

* * *

This and other similar advertisements in trade and industrial publications are published in the interest of truck conservation by the

ETHYL CORPORATION
Chrysler Building, New York City

Manufacturer of Ethyl fluid, used by oil companies to improve the antiknock quality of motor and aviation gasoline.

When he offers you a plan for PREVENTIVE MAINTENANCE, he is prepared to help save your truck with "big fleet" methods!



WASHINGTON BULLETIN

(Continued)

had finally decided that they just didn't want Aviation Corp.'s liquid-cooled model.

That Civilian Supply Head

Rubber boss William Jeffers' name still is circulating around town as a candidate for Civilian Supply Administrator. His handling of the synthetic rubber program has won the belligerent railroad man a considerable following. But if, as looks likely, pending legislation to create an independent civilian supply agency is sidetracked, Jeffers will fade.

Donald M. Nelson is cold to appointing Jeffers because he's unmanageable. When Nelson persuaded A. D. White-side of Dun & Bradstreet to take the job several weeks ago, he got the kind of man he wants for this post.

Friends of Joe Weiner, former chief of the Office of Civilian Supply, are still pushing to make it an independent agency, figuring that although Weiner wouldn't be top man, he would get an important behind-the-scenes job as legal adviser or something of the sort.

To Keep Competitive Way

Business men in Washington—particularly men from consumer goods industries—are disturbed by the possibility of a strong and more or less independent civilian supply unit.

They fear it would develop into something that would undermine ordinary competitive ways of doing business. They believe that the logic of events plus pressure of organized consumers would force a real civilian supply agency into programs of standardization and simplification.

These programs might be intended to get the most possible for the civilian out of any materials made available, or might be aimed to cut the civilian to a real bedrock in the interests of military production. But in either case, the result could be the practical elimination of advertised brands. Fears are increased by discovery of a clause in the OCS bill that looks encouraging to "reformers" (page 17).

Army for Standardization

The War Production Board so far has shied away from any very far-reaching adventures in standardization. But light industry men fear that a civilian supply unit inclined to move in this direction would find plenty of support from the Army, which would be attracted by the possibility of getting the civilian economy on a bare-bones basis in the interest of maximum war production.

Nor, it's thought, would the heavy industries with which the Army deals be inclined to hold it back. Fully converted, and doing fine on munitions production, the durable goods makers find "war business has become business as usual," and they have no desire to see war business hindered merely for the protection of civilian business habits.

Scheduling Meat

Function of the new War Meat Board, now being set up in Chicago, is to control week-by-week demand for meat products, balancing it with supplies. This requires getting full information, allocating meat on the facts.

WMB's assignment comes in three steps:

- (1) Get the armed forces all the meat they need.

(2) Make sure there will be sufficient meat to honor outstanding civilian consumer ration coupons.

(3) Adjust lend-lease purchases to available tonnages.

This order of allotment, taking the place of previously frantic government scrambling for all the meat in the market, is a major victory for the breeders and packers. They demanded precisely this program when they organized their Livestock and Meat Council six weeks ago (BW-Apr.10'43,p15).

C.I.O. Can't Make a Decision

Now that it is again getting a sympathetic hearing from WPB on its demand for a couple of top jobs for labor men, the C.I.O. finds itself rather embarrassed by the necessity of naming a man.

Donald M. Nelson has offered to put

Advertised Brands on the Spot

In their last-ditch fight against OPA's pricing and labeling regulations for hosiery (page 18), manufacturers and distributors of branded lines of stockings found themselves this week asking for special treatment under law—and arguing emphatically to make it clear that the reason for that special treatment wasn't the one that consumer critics might allege: that advertising increased the cost of goods.

In this campaign, the hosiery men can get many a pointer from Borden and National Dairy which eight years ago found themselves maneuvered into the same uncomfortable and paradoxical position. At that time, they and a few other dairies were selling their milk in New York stores at 1¢ more a quart than less known brands. New York State legislated this differential into law by permitting—actually compelling—distributors of "well-advertised brands" to charge a penny more a quart. By the time the Supreme Court upheld that differential (BW-Feb.15'36,p11), the big dairies, notably Borden, found themselves pretty much dissatisfied with their preferred position, for consumer critics had a ready-made weapon to use in their attack on advertising.

Hosiery men are in much the same spot, except that they should have an easier time justifying a preferred price for branded goods than the milk men did, for there are greater differences in stockings than

in milk, hence more reason for a price differential to cover special quality and construction features that exceed the new OPA-WPB grade A standard. Just how much of a differential, of course, is another question—and that's the point on which OPA and consumers will train their big guns. And they will have plenty of ammunition as long as the big private-brand distributors—the department stores, chains, and mail order houses which account for half of all full-fashioned hosiery sales—fail to join the producers of the advertised brands in the fight for higher prices. Many of their lines are manufactured to exactly the same specifications by the mills that turn out the advertised brands.

For the present, the argument is pretty much limited to stocks on hand, for new production must conform closely to WPB's grade specifications which allow scant latitude for the extra-quality features advertised by the branded-line producers. They might induce WPB to stretch the specifications a bit, but that would be useless unless OPA could be persuaded to put ceiling prices on top lines back to last week's pre-freeze levels—up 10¢ to 40¢.

Meanwhile, the branded hosiery men find their strongest point of attack in the allegation that the new OPA ceilings already permit many distributors of nonadvertised lines, which all told account for about 80% of sales, actually to increase prices.

uses for
the main
o you
ortation
wartime
olling.
Start to
or you
ance!

TION
ity
y oil
nack
line.

2, 1943 Business Week • May 22, 1943

WASHINGTON BULLETIN (Continued)



THE steady roar of naval guns...
Protecting convoys of men and supplies...

Carrying the battle to the enemy...

American Industry is rapidly stepping up mass production of these vital weapons of war. Supplying guns ahead of schedule.

To keep war plants working at maximum speeds, the very finest of heating equipment is required... for proper heat means increased production.

For fifty years, steam has served America in peace and war, the one indispensable heating medium.

Steam, harnessed and brought under control with Webster Steam Heating Equipment, is doing an outstanding heating job in thousands of war plants, providing economy and trouble-free operation.

Today, Webster is engaged in direct war work and in supplying Steam Heating Equipment for buildings serving the war effort and essential civilian needs.

Repairs and replacements for Webster Systems are available under W. P. B. Order P-84.

Warren Webster & Company, Camden, N. J.
Representatives in principal U. S. Cities



a labor man at the head of WPB's Labor Production Division, now run by Wendell Lund, and another at the head of a new Labor Requirements Division which would handle the overlapping area between the War Manpower Commission and WPB. He has asked C.I.O. and A.F.L. each to nominate one of these vice-chairmen.

A.F.L. has made up its mind on a man, but C.I.O. is in trouble. Difficulty is that Nelson insists that the new officials sever their union connections, just as the present vice-chairmen have quit their industry jobs and taken government salaries. This doesn't worry A.F.L., but in a youthful, shifting outfit like C.I.O., any man who quit the organization for a year or so might find himself far out of step by the time he came back.

Helicopter Advance

Igor Sikorsky's helicopter (BW-Apr. 24 '43, p.22) stood still in the air, backed into a parking lot while still air-borne, easily lifted four men, wowed 40,000 people at the 25th air mail anniversary celebration at Washington's National Airport. Its closed cabin and fuselage, rudder-propeller and lift-rotor controls, full set of navigational instruments including radio are more developed and simplified than most airmen had thought.

Improvements made in connection with substantial Army orders may push the helicopter's public acceptance ahead of Sikorsky's own prediction: that sales will reach one billion dollars annually and the price will come down to medium-car levels within ten years after the war.

Rolling Out the Barrels

With advance knowledge that WPB is giving serious consideration to a "furlough" from war alcohol production to replenish liquor supplies, several big distillers have got the jump on their little competitors. Certain companies which were taken into WPB's confidence have been buying up barrels—from under the nose of competitors—and otherwise getting set.

WPB plan is to fix monthly quota for war production, releasing over-quota production for beverage use. Effect will be to ease gin and blended whisky supplies immediately; distillers may even be persuaded to release more bonded stock to the market. This will ease upward pressure on prices and may give OPA an excuse for cracking down.

If Food Administrator Chester O. Davis agrees to release the grain, WPB plans to put the scheme into effect this summer.

—Business Week
Washington Bureau

Help for Property Owners

Although Washington likes to sound sympathetic toward the plight of small business, the Reconstruction Finance Corp. Mortgage Co.'s offer to provide loans for hard-pressed owners of improved real estate is not an attempt to bail out shopkeepers. Most of the latter don't own their premises, merely rent them. The RFC's idea is to keep the real estate market from slumping by pumping out funds for taxes, interest on mortgages, insurance, and similar running expenses.

Among the first landlords to ask for loans will probably be those whose properties house filling stations, resort hotels, stores, service stations, and other semi-shaky enterprises. RFC will dish out the money in three ways:

(1) Participation in existing mortgages. That is, RFC will keep the property owner from falling in arrears on his mortgages and other liens. Mortgage-holders are sup-

posed to cooperate by not charging more than 4% interest for the duration and one year afterward.

(2) Refunding of mortgages. Here the RFC will buy out the mortgage-holders and, in turn, become mortgagees.

(3) Care and preservation loans. These will be made to the owners of unencumbered property to meet taxes, insurance, and upkeep.

Interest rates will be the customary RFC 4%. Loans will not be made on property with an existing indebtedness of over 60% of its normal value, nor will the RFC pump out money to such an extent that the total encumbrance rises to over 75%.

RFC doesn't know how much business it will do under these terms. No special amount of money has been earmarked. Pressure from smaller property owners for financial help has been growing lately, however, hence the offer to keep the real estate market from cracking.

FIGURES OF THE WEEK

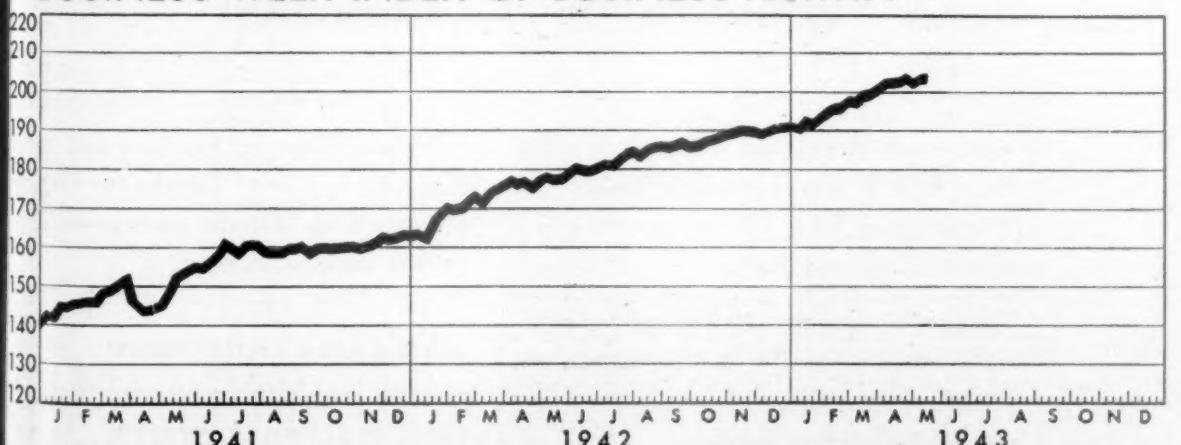
	\$ Latest Week	Preceding Week	Month Ago	6 Months Ago	Year Ago
BUSINESS INDEX (see chart below).	*204.7	+204.4	203.8	191.2	178.4
PRODUCTION					
Steel Ingot Operations (% of capacity)	98.6	99.4	99.1	98.7	99.2
Production of Automobiles and Trucks	19,675	18,405	18,855	20,205	21,800
Engineering Const. Awards (Eng. News-Rec. 4-week daily av. in thousands)	\$11,925	\$12,762	\$13,832	\$28,129	\$44,317
Electric Power Output (million kilowatt-hours)	3,969	3,904	3,917	3,776	3,357
Crude Oil (daily average, 1,000 bbls.)	3,984	4,021	3,912	3,880	3,484
Luminous Coal (daily average, 1,000 tons)	1,700	+1,595	2,067	1,867	1,879
TRADE					
Miscellaneous and L.C.L. Carloadings (daily average, 1,000 cars)	81	80	80	86	79
All Other Carloadings (daily average, 1,000 cars)	55	51	51	61	61
Money in Circulation (Wednesday series, millions)	\$16,741	\$16,683	\$16,424	\$14,408	\$11,861
Department Store Sales (change from same week of preceding year)	+12%	-5%	-28%	+20%	+6%
Business Failures (Dun & Bradstreet, number)	77	64	89	148	215
PRICES (Average for the week)					
Gold Commodity Index (Moody's, Dec. 31, 1931 = 100)	244.8	246.0	247.0	231.8	232.3
Industrial Raw Materials (U. S. Bureau of Labor Statistics, Aug., 1939 = 100)	160.0	159.9	160.0	155.5	143.4
Domestic Farm Products (U. S. Bureau of Labor Statistics, Aug., 1939 = 100)	206.5	207.7	208.9	188.1	185.7
Fininished Steel Composite (Steel, ton)	\$56.73	\$56.73	\$56.73	\$56.73	\$56.73
Raw Steel Composite (Iron Age, ton)	\$19.17	\$19.17	\$19.17	\$19.17	\$19.17
Copper (electrolytic, Connecticut Valley, lb.)	12.000¢	12.000¢	12.000¢	12.000¢	12.000¢
Wheat (No. 2, hard winter, Kansas City, bu.)	\$1.38	\$1.39	\$1.37	\$1.23	\$1.16
Sugar (raw, delivered New York, lb.)	3.74¢	3.74¢	3.74¢	3.74¢	3.74¢
Cotton (middling, ten designated markets, lb.)	20.97¢	21.09¢	21.13¢	19.33¢	20.08¢
Wool Tops (New York, lb.)	\$1.324	\$1.320	\$1.332	\$1.234	\$1.254
Rubber (ribbed smoked sheets, New York, lb.)	22.50¢	22.50¢	22.50¢	22.50¢	22.50¢
FINANCE					
Stocks, Price Index (Standard & Poor's Corp.)	93.5	94.6	90.3	75.4	62.7
Medium Grade Corporate Bond Yield (30 Baa issues, Moody's)	3.91%	3.92%	3.97%	4.24%	4.27%
High Grade Corporate Bond Yield (30 Aaa issues, Moody's)	2.74%	2.75%	2.76%	2.79%	2.85%
U. S. Bond Yield (average of all taxable issues due or callable after twelve years)	2.30%	2.31%	2.32%	2.33%	2.36%
Call Loans Renewal Rate, N. Y. Stock Exchange (daily average)	1.00%	1.00%	1.00%	1.00%	1.00%
Time Commercial Paper, 4-to-6 months, N. Y. City (prevailing rate)	1-1%	1-1%	1-1%	1-1%	1%
Banking (Millions of dollars)					
Demand Deposits Adjusted, reporting member banks	30,051	29,528	33,004	28,927	25,241
Total Loans and Investments, reporting member banks	47,289	46,108	42,250	37,691	31,222
Commercial and Agricultural Loans, reporting member banks	5,565	5,607	5,594	6,359	6,669
Securities Loans, reporting member banks	1,979	2,203	1,168	911	828
U. S. Gov't and Gov't Guaranteed Obligations Held, reporting member banks	33,799	32,331	29,475	24,027	16,576
Other Securities Held, reporting member banks	3,096	3,103	3,211	3,323	3,645
Excess Reserves, all member banks (Wednesday series)	1,730	2,130	2,160	2,402	2,925
Total Federal Reserve Credit Outstanding (Wednesday series)	6,526	6,850	7,104	4,925	2,612

Preliminary, week ended May 15th.
Figures fixed by government.

† Revised.

§ Date for "Latest Week" on each series on request.

BUSINESS WEEK INDEX OF BUSINESS ACTIVITY





"Just getting the wire laid was a tough problem. Keeping it intact in bombing shelling and adverse weather is a twenty-four-hour proposition. . . Wire repair crews are made up of four men. Three stand guard while the other works."

(From story by Sgt. James W. Hurlbut, Marine Corps Correspondent)

Telephone Exchange on Guadalcanal

Marine communications men built it under fire. And it has been kept built. The "Guadalcanal Tel & Tel" covers well over a thousand miles of wire.

That is where some of your telephone material went. It's fighting on other fronts, too. We're getting along with less here so they can have more over there.

Telephone lines are life-lines and production lines in a war. Thanks for helping keep the Long Distance wires open for vital calls to war-busy centers.

WAR CALLS COME FIRST

BELL TELEPHONE SYSTEM

Business Week • May 22, 1943



THE OUTLOOK

Excess Inventory Running Out

Business index hits a plateau that may be a portent. New materials production not fast enough to take up slack in liquidation of stocks. Fresh demands tighten steel.

almost fully recovered from the effects of the coal stoppage and the drop in iron ore shipments on the Great Lakes, the Business Week Index for the week stood at 204.7. Four weeks ago it was 204.8. This marks the first real plateau in a production rise that averaged three-fourths of a point a week since the turn of the year. And, it is the question whether a several-month period of leveling off—if not, indeed, a minor recession—may not be ahead.

Output Down to Intake

or it must be recalled that manufacturers have been using up in producing the excess inventories they hoarded between mid-1941 and mid-1942 (Outlook chart); and that when the surplus is gone, output must readjust down to intake. Judging from the "normal" inventory-shipments relationships that prevailed in 1939, 1940, and early 1941, the excess inventory amounted to two billion dollars worth of goods in mid-1942 and will be all used up by the third quarter of this year. Absorption of the surplus during recent months has permitted production to rise a full 5% above the level justified by current materials intake; so, that much output would be lost.

But, it was expected earlier (BW—Apr. 16 '43, p13) that our ability to produce steel, aluminum, rubber, food, and other materials would expand quickly enough to take up the slack left by the end in inventory liquidation, and to permit even a slight advance in total output. Now, the steel program, for instance, is six to eight months behind schedule, and we shall have in August less capacity than the 97,000,000 tons first anticipated. Other expansions similarly more or less delayed.

Squeeze Out More

All this points to a flattening, or even slight easing, in production. But manufacturers may be able to squeeze more excess out of inventory than the "normal" experience indicates. Certainly, WPB's efforts in scheduling, scaling of aircraft producers' stocks, and integrated allocation of materials are all aimed towards minimizing the wastage inherent in inventories lying idle be-

cause of unbalance and maldistribution. Thus, though the cream is undoubtedly off the rise in production, actual output levels depend on maximizing the efficiency of inventory use.

Railroad Cut Significant

Further evidence of the thin margin on which the production machine is operating is the word that no new steel could be spared from third-quarter allocations for building the 30,000 freight cars that the Office of Defense Transportation reportedly had wanted (BW—Apr. 24 '42, p26). Output for the year now is estimated at 26,000 cars—6,000 authorized but not built in 1942, and 20,000 allotted during the first half; completion of this total will be stretched over coming months.

Reasons for the tightness in steel, despite the recent and expected (BW—Nov. 28 '42, p13) cutbacks in ordnance, are the lag in new capacity, the jump to

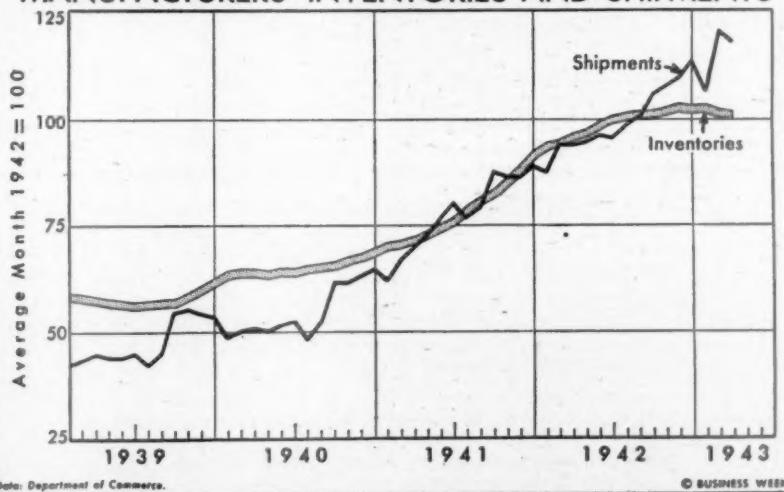
30% of production in steel needs for shipbuilding, the possible rise in third-quarter lend-lease exports, and the larger-than-anticipated requirements for such "indirect war" items as farm equipment, containers, river barges, etc. Right now, with immediate industry tension eased by extension of the coal truce (page 15), producers are beginning to worry over the adequacy of future coke capacity.

Farm Price Halt

Though many issues on the price front, notably coal wages, remain to be settled, it is clear by now that President Roosevelt's six-week-old hold-the-line order has halted the advance in key farm commodities. In the week of May 18, the Bureau of Labor Statistics' index of seven prices based on August, 1939, as 100 was 206.5, down from a high-water mark of 210.1 in the Apr. 6 week. Before that, the farm price index had jumped 25 points in four months from the 185 level to which it had been holding since May, 1942, 10 points in December, and five points each in January, February, and March.

Sign of the further spread of the manpower pinch may be seen in the drop from March to April in factory employment, adjusted for seasonal variation—the first since the 1942 con-

IN THE OUTLOOK: MANUFACTURERS' INVENTORIES AND SHIPMENTS



Whatever the variations from industry to industry (page 38), total manufacturers' inventories now are declining. Actually, the drain on surplus hoards began in mid-1942, when the inventory curve first flattened. For, when manufacturing activity rises, the quantity of goods required on produc-

tion lines—"in process"—also increases. Since mid-1942, producers have been drawing on their excess inventories to meet those rising production-inventory needs, instead of satisfying them out of current materials inflow. When all the surplus is gone, shipments and inventories will flatten.

version period. Until now, though total nonagricultural employment has been falling off, new factory workers could be siphoned from lower-paying trade and service lines. While the War Manpower Commission's 48-hour rule went into effect on Apr. 1 in critical labor shortage areas, this step released too few workers to explain away the employment drop.

Finagling Spuds

Profit era flourishes for Chicago wholesalers, thanks to OPA's 21% markup for "warehoused" potatoes.

Reversing the usual attitude of distributors, Chicago wholesale handlers of fruits and vegetables are cheering OPA. The price agency is giving them profits beyond anything previously experienced. At the same time, well-informed housewives are condemning OPA for forcing retail prices beyond all reason.

• **Potatoes Illustrate Point—Best example of how it works is potatoes. The market has been bare for so long that,**

TEXAS REVOLT

Fed up with "divided authority and buck passing" in Washington, J. E. McDonald, Texas commissioner of agriculture, is leading a revolt of insurgent Texas potato growers against OPA.

On his own authority, McDonald has advised the growers to sell their potatoes at \$3.50 per cwt. instead of \$2.50, the price set by OPA. The 650 Harris County members of the Farmers Cooperative Marketing Assn. had complained to him that regional OPA officials were firm about the \$2.50 ceiling.

The growers argued that the \$2.50 price was based on experience of Maine, Idaho, and California farmers who generally average 200 to 250 bu. per acre, whereas Texas fields yield only 65 bu. of No. 1 potatoes to the acre at a cost of \$133.

When their row with OPA was at its height, most Harris County farmers withdrew from the market, and 45 carloads of potatoes rotted in the ground while Houston merchants brought in potatoes from Louisiana and other points.

Most of the co-op members, acting as individuals, are selling at the "Texas ceiling," although a few are hesitant to sell at all.



SPUDS FOR SENATORS

Sen. Allen J. Ellender last week added a novel but welcome touch to his annual custom of distributing produce from his Louisiana farm among his

colleagues. This time he handed 1,200 lb. of potatoes, favoring seven of leading potato states (left to right)—Senators Kenneth Wherry (Nebr.), Ellender, Worth Clark (Idaho), Ralph Brewster (Me.).

even though receipts are increasing as Louisiana, Alabama, and California spuds come along, demand keeps ahead of supply. It is estimated that it will take more than two weeks to fill wholesale and retail stocks to normal seasonal levels.

Meanwhile, local produce merchants in towns like Evansville, Ind., Green Bay, Wis., and Dubuque, Iowa, are sending their trucks to Chicago to pick up a hurry-up load to hold their spud-hungry customers until they can get a carload. Outbidding one another is out, because of ceilings imposed f.o.b. original point.

• **How to Skin the Cat—Normal channel through which carload potatoes move is consignment to a carload receiver, who either resells them on the car track at Chicago's South Water Market or resells them while they are rolling. OPA allows a 9½% markup for cash-and-carry sale of potatoes. But a ruling by the local OPA office at Chicago no longer allows the receiver to sell a car on the team track above the f.o.b. ceiling plus freight, thus prohibits him from any markup on the deal. However, if he warehouses the potatoes, he is entitled to a 21% markup.**

Produce dealing is a trade that requires quick wits. The boys got the point in no time flat. Chicago warehouses were bulging with government business, but there were rentable old buildings on switch tracks in the outskirts. From Dolton on the south to Mannheim on the north, Chicago receivers now operate warehouses or lease

trackside warehouse space. The box of potatoes is unloaded by huskies push a hand truck of sacked potatoes straight across the floor and into waiting trucks of dealers who pay on the line—f.o.b. price, plus freight, plus 21%. There is a lineup of trucks at each establishment.

• **Minus Kickback—Sole fly in the ome is that OPA recently O.K.'d arrangement by which the shipper gets a kickback from the receiver. Consequently, southern shippers with ceilings of \$2.50 per cwt. at the f.o.b. point demand 50¢ or 75¢ extra in kickback, which is like money from home.**

Upshot of all this finagling is that tail prices to Chicago housewives, apparently entirely legal by OPA's mathematical formula for computing ceilings by adding costs and percentages at each handling, have soared to \$12 for California potatoes (12½¢ a pound) \$8 to \$10 for Louisianians and Alabamians. Experts say that if OPA ceilings regulations had never been imposed, retail prices of these potatoes would at least 33% below present levels.

• **Citrus Fruit Mixup—Not too dissimilar is the shift in handling of citrus fruits. OPA allows a higher markup for the first receiver if he sells his oranges, or grapefruit to a whole store than if he sells through the auction. So the auction is getting most no grapefruit and 25% oranges. This boosts prices to the consumer. But happy South Water marketers are asking, "Where has our life been all our life?"**

Lewis Is Outmaneuvered

Taking NWLB's action as sign of weakness, the mine workers' boss set out to back board up against the wall. What actually did was force White House to support NWLB.

For the first time since the coal wage dispute came to national attention, the initiative this week passed from the hands of John L. Lewis. In acceding to Interior Secretary Harold L. Ickes' request that a May 19 strike deadline be withdrawn and in extending the date until May 31, Lewis, temporarily at least, lost his commanding role—but not his place in the headlines; that was assured by the bombshell announcement of his application for readmission into the A.F.L. (page 5).

His relegation to this less significant position was not part of his calculations. He may gain by it ultimately, but it is distinctly out of character.

Up Against NWLB Again—In deferring strike action, Lewis thought he could get an opportunity to talk about a new wage agreement either with the mine operators or with Ickes, now the top management figure of the federally controlled coal industry. Instead, all he had was the same opportunity that existed before: an invitation to do his talking before the National War Labor Board. Lewis boxed himself by mistaking last week end's NWLB action for a sign of weakness. At that time, the board issued an interim order in the usual case directing the operators and the miners to resume direct negotiations, and, in commenting on the dispute, it said: "There is more than ample room for collective bargaining . . . which may reasonably produce a greater income for the mine workers."

Move Misinterpreted—This statement was widely interpreted as knuckling under to the miners, and Lewis took it such. A board request that both the union and the operators appear before NWLB on Monday to work out arrangements for the negotiations was just as widely taken as a face-saving move. Lewis wanted to leave no way for the board to save face. He announced his readiness to resume negotiations but refused to go before NWLB.

Lewis' critics in the labor movement maintain that at this point Lewis sold out the miners for his own vanity. Up to then, they credit him with following a course which was in the miners' interests. **Board Gets Tough**—With every way closed to it by Lewis' all-or-nothing stand, the board's alternative was to fight or abdicate. Monday, in an executive session, NWLB deserted all pretense of complacency, asserting that no other agency of the government has the authority to direct the parties in this case to proceed with collective

bargaining negotiations," and directing the operators "not to proceed with collective bargaining" until such time as a representative of the mine workers' union appeared before the board.

That very afternoon, Ickes wired Lewis asking him to defer a coal stoppage. Lewis complied in the hope that the government would "instruct the coal operators to forthwith engage in collective bargaining conferences."

Ickes and Davis Differ—Ickes immediately went into conference with NWLB Chairman William H. Davis and Economic Stabilization Director James F. Byrnes. It is understood Byrnes adjudicated the issue on behalf of the President. Ickes, interested only in continued production of coal, wanted NWLB to stand aside and let the miners and operators bargain, or, failing White House approval of that, wanted to make an agreement with the union and then sell it to the operators.

Davis was adamant. He carried with him the report of a unanimous NWLB which stated that unless the board maintained jurisdiction over all disputes that it essayed to handle, it could not say to one union that "one rule applies to you, but another rule applies to the United Mine Workers of America."

Faced thus with the threat of complete resignation of the members of NWLB, Byrnes decided against Ickes.

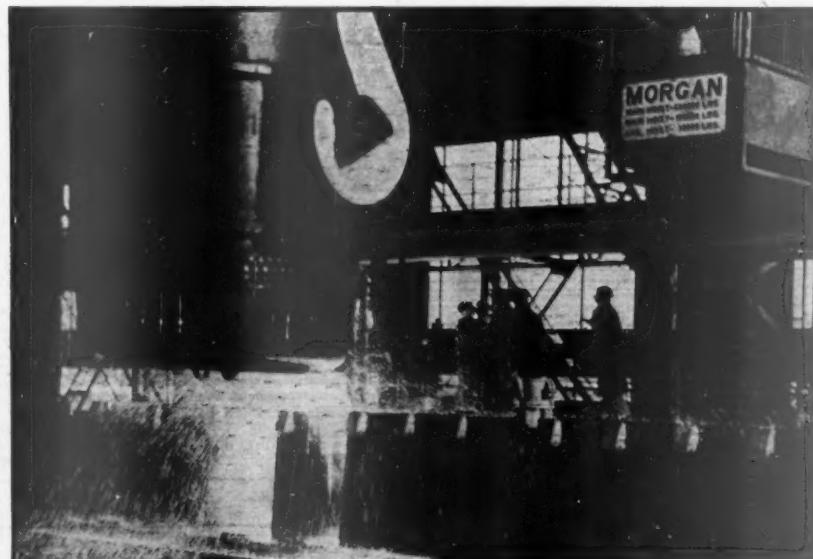
Ickes Tells the Decision—Ickes, therefore, replied to Lewis that he had power neither to negotiate a contract himself nor to order the operators to do so, and that "any contract must have the approval of NWLB."

Procedurally, the case now shapes up like that of the Toledo, Peoria & Western Ry. whose president, George McNear, defied NWLB. But this time the shoe is on the other foot; the government took over McNear's road (BW-Mar.28'42,p15) with the obvious intention of sustaining NWLB's findings in favor of the workers, but in the coal ruckus, NWLB will be dead set against doing anything to increase Lewis' prestige even though it may be disposed to do something for the miners.

How It Can Work Out—In the Toledo, Peoria & Western case, the board's ruling was unacceptable to McNear, so the Office of Defense Transportation carried out the terms of the award.

Ickes may, in the end, be custodian of U.M.W.A. Meanwhile, an NWLB panel will make recommendations. Presumably the operators will accept them, and Lewis will be asked to sign a contract in which they are incorporated. If John L. accepts what he will be offered (and the terms surely will include some of his original demands), he will do so only because he has remembered that he is supposed to represent the miners.

If Lewis doesn't accept, it means another coal strike.



FIRST STEEL FOR COAST

Less than a year after shipbuilder Henry J. Kaiser started construction of the first integrated steel mill west of the Rockies (BW-Nov.21'42,p52),

the No. 1 heat poured from an open hearth ladle at Fontana, Calif., last week. The new \$100,000,000 Kaiser plant will turn out 1,050 tons of steel daily when all six furnaces are completed and "blown in."

What Subsidies?

Rollback on food items hangs fire; OPA is held at bay by Congress which, after all, holds the purse strings.

Food subsidies to keep down the cost of living and stave off wage demands are no nearer reality than they were ten days ago when Price Administrator Prentiss M. Brown announced the program (BW-May 15 '43, p5).

The President—the only man in the nation who can take a whack at selling such medicine to Congress—has delivered no sales spiel. Nor has a proposed radio speech in behalf of subsidies by Economic Stabilization Director James

F. Byrnes materialized. Congress is fairly silent on the subject, though there's scarcely any necessity for it to show its colors. Everybody knows that Congress is antisubsidy. The initial food subsidy program can be installed without congressional sanction, but Congress can readily put the kibosh on it by cutting off OPA or Reconstruction Finance Corp. funds.

• **How It Shapes Up**—Nonetheless, OPA economists have been whipping the hypothetical program into something like its final shape. Here is what it will look like:

Prices on three major food categories—meat, butter, and coffee—are to be rolled back about 10% by subsidies amounting to \$400,000,000 to \$500,000,000 annually. The RFC would put up the money, and OPA would inject it at the first distribution level (usually

the processor level). Together with price reductions brought about by the new "community ceilings" (BW-May 15 '43, p97), the total cost of living would be cut back about 1% from present levels. The 10% slash in prices of the three basic food items would reduce total food costs an estimated 3%.

• **Easy to Administer**—As OPA envisages this program, it is something of a departure from the 16 wartime subsidies already in effect (tabulation below). All the prior subsidies are applied to commodities whose prices would otherwise jump through current ceilings. But in the new program, meat, coffee, and butter were not primarily chosen because their prices are—or will be—out of line. They were chosen because subsidies are comparatively easy to administer on these foods.

In effect, this means that the com-

Box Score on Wartime Subsidies

Although the proposed subsidies to roll back food prices are sure to draw congressional fire, 16 wartime subsidy programs are already in effect.

The direct payments, or absorptions, that are involved in these programs amount to approximately \$720,000,000 annually (not including a \$15,-

000,000 subsidy to get adequate food supplies into Puerto Rico). Here is the score on wartime subsidies as it stands to date:

Commodity	Type of Subsidy	Super- visory Agency	Estimated Annual Rate of Subsidy	Commodity	Type of Subsidy	Super- visory Agency	Estimated Annual Rate of Subsidy
Various imports	Absorption of certain payments on war-risk insurance	WSA	\$65,000,000	Henequin and sisal	Absorption of higher costs in transportation, insurance, etc.	DSC	\$5,900,000
Sugar	Payments to refiners to cover increased transportation costs and losses resulting from reduction in weight through transhipment.	DSC	\$30,000,000	Petroleum & petroleum products	Payments for increased transportation costs, rail hauls, insurance, etc.	DSC	\$268,000,000
Soybean, cottonseed, and peanut oils	Payment to refineries ($\frac{1}{2}$ ¢ per lb.) to absorb rising prices at the farm level.	CCC	\$17,000,000	Imported metals	Absorption of (1) higher shipping costs and (2) increases in foreign sellers' prices.	MRC	\$30,000,000
Copper, lead, and zinc	Incentive payments to create production in marginal mines. Production beyond established quotas carries a premium of 5¢ per lb. for copper and $2\frac{3}{4}$ ¢ for lead and zinc.	MRC	\$25,100,000	Copper scrap	Absorption of costs in connection with conversion of excess manufacturers' inventories into electrolytic copper.	CRC	No estimate
Bituminous coal	Double subsidy consisting of (1) absorption of additional costs on water-borne coal to New England, and (2) direct payments for rail transportation.	WSA	\$15,000,000	Nicotine sulphate	Payments to manufacturers to compensate for rises in price at the farm level.	AMA	\$1,750,000
Imported oil-bearing seeds	To keep down pressure on OPA ceilings, imported oil-bearing seeds are purchased by the government and put into trade channels at a loss.	CCC	\$800,000	Alcohol	Absorption by the government of higher grain and molasses prices, freight charges, and war-risk insurance.	CCC	No estimate
Coffee	Payments, direct or indirect, to cut transportation outlays and absorb higher insurance premiums.	CCC	\$7,000,000	Chilean nitrate	Absorption by the government of increases in foreign sellers' prices and of increased transportation and insurance costs.	DSC	\$6,000,000
		WSA	\$14,000,000	Cheddar cheese	Payments to processors to enable them to purchase milk for additional cheese production.	CCG	\$30,900,000
				Canning crops	Payments to processors to get bigger supplies of tomatoes, peas, sweet corn, and snap beans from farmers.	CCC	\$10,000,000

Legend:

AMA—Agricultural Marketing Administration
CCC—Commodity Credit Corp.

CRC—Copper Recovery Corp.
DSC—Defense Supplies Corp.

MRC—Metals Reserve Co.
WSA—War Shipping Administration.

with producer is promised still cheaper coffee, though the price is not very high. The saving he gets on coffee can be applied to higher prices on some other commodity. In the end, the net effect is the same as if only those foods in the biggest price increases had been singled out for subsidy. The invasion of meat is a case of killing two birds with one stone. Prices are sky high, but the ease with which subsidies can be administered is the big reason for picking meat.

Only Rationed Foods—A second departure from prior subsidy programs is that this one—initially, at least—will cover only rationed foods. This also is administrative reasons. Under rationing, all trade levels are either licensed or can be checked easily through their ration bank accounts. OPA feels that its ready-made checkup system would prevent a processor from attempting to finagle a bigger subsidy than he is entitled to. Additionally, OPA may employ a bookkeeping system whereby subsidy payments are made only on receipt of ration stamps.

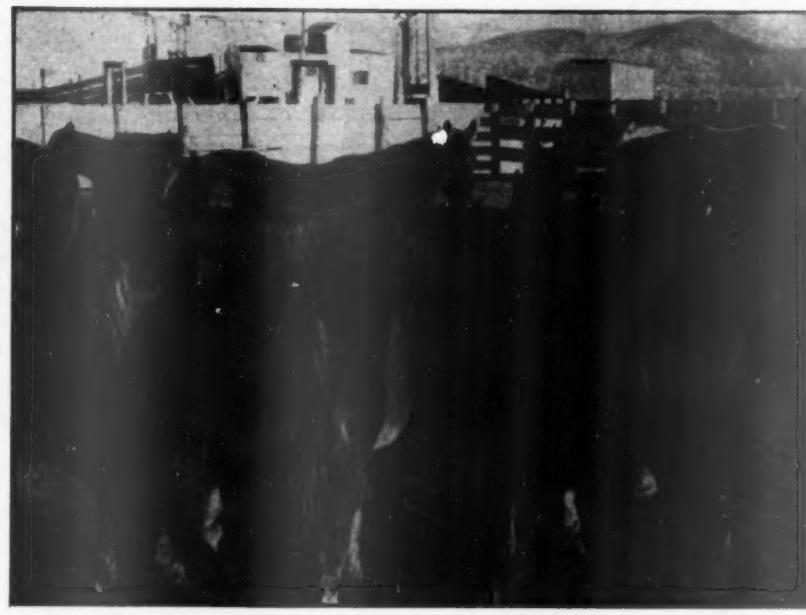
Finally, meat, butter, and coffee are specially good subjects for subsidies because this handful of categories exercises tremendous influence on cost-of-living figures.

Differential Payments Out—Because \$500,000,000 is chicken feed as subsidy money (especially in comparison with the subsidies used in England), OPA will not attempt differential payments. That is, a low-cost processor will get the same rate of payment as a marginal processor. He will not be asked to cut his profits.

But if the program were to be expanded at some future date, differential payments would almost become mandatory to (1) economize in the use of subsidies, and (2) hold down the "gap" that results from pumping new funds into the hands of entrepreneurs and wage earners.

Alternative System—Differential payments, in their simplest form, would consist of paying higher subsidies to one producer than to another. Another—though more complex—system would be to pool an entire industry and treat it as if it were one huge corporation. The high profits of the low-cost producers would thereafter be used, in part, to subsidize the marginal ones, with the government footing whatever additional bills there might be.

But OPA's thinking on this score is still only peripheral. It is going to be hard enough to ram through the simple food subsidies, and even that program can easily fall by the political wayside. If it does, the unions, seeing the government's inability to cope with increased living costs, will put on the pressure for higher pay rates, and the inflationary wage-price spiral will be off to another start (BW—May 15 '43, p5).



SAVED BY OPA

Wild horses (above) got a last-minute reprieve from the slaughter house at Yerington, Nev., when OPA slapped price ceilings on horse meat (BW—Apr. 24 '43, p67) to discourage the kill

ing of serviceable work animals for food. Complaining that the new 19¢-per-lb. retail roof kills their profits, many packers are suspending operations or retrenching. Before the ceiling, operators rounded up and fattened wild horses for slaughtering.

Brown's Retreat

**Hold-the-line order ends
OPA vacillation; now grad-
ing—without grade label—is
ordered for canned goods.**

Last week was the brightest for the so-called consumer movement since the days of OPA's old up-and-at-em Consumer Division. Price Administrator Prentiss M. Brown, who has been backtracking and filling on grade labeling for a couple of months, finally decided that grade labeling can't be thrown out as long as the President's hold-the-line order is in force.

• **Maloney's Joker**—Probusiness elements in Washington suddenly woke up to the fact that the Maloney bill to create a special civilian supply agency contains, by accident or design, a clause for "reducing and eliminating nonessential uses of goods, services, and productive resources." Visions of standardization and still more labeling were conjured up for business men. What a real crusading administrator could do if that clause became law was a thought that produced plenty of jitters.

Of more immediate interest, however, is Brown's position. He has been trying to kill labeling of canned goods

and women's rayon hose for weeks, and he almost did it a short time ago. Then came the hold-the-line command. Now Brown has been forced to retreat so far that even a request from the House interstate commerce committee to hold labeling in abeyance until hearings could be held on it was turned down.

• **Labels for Hose**—This means that the grade labeling of women's rayon hose now goes into effect. The original order (MPR 339) had been suspended in April, subject to a rewrite (BW—Apr. 17 '43, p70). But the version that now goes into effect shows little revision. The best Brown has been able to promise is that, as now written, it "will be scrutinized over a period of three or four months to determine how the trade fares during this initial period."

Under the amended MPR 339, manufacturers must begin immediately to sell their products in A or B grades, the latter at about a 30% differential. Wholesalers can go ahead and clean out stocks of B grades at grade A prices until June 15, retailers until July 15. Then they, too, are fully under the new schedules.

• **Everybody Squawks**—All this is bitter medicine to manufacturers and distributors. They claim OPA has no legal authority to force grading. They also demand (1) that branded lines get higher margins than unbranded lines, (2) that additional grades, such as "AA," be set up, and (3) that prices,

as well as differentials between big and little sellers, be reviewed and revamped. Big stores have a special squawk, that their margins are too low. Small stores (which rate higher margins) are angry because they believe the government is advertising that little stores have higher prices than big stores.

Meantime mandatory labeling of canned goods has been revised somewhat, though the consumer will still be able to identify the merchandise by grade. OPA has conceded one point to the canners—the grade need not be printed on the can, need only appear on merchants' invoices. On the other hand, when community ceilings are issued on the 1943 canned pack, the prices will be identified with both brand names and grades. Thus, although the consumer can't tell the grade by looking at the can itself, he will be able to tell it by looking at the posted price lists.

Despite this uproar, however, OPA seems well on the road toward more grade labeling. The tipoff came a few days ago when the price chief of the Textile, Leather, and Apparel Division testified before the Senate Small Business Committee that regulations similar to MPR 339 will eventually be applied to men's and women's work clothes, men's underwear, household linens, blankets, and possibly men's dress shirts.

Clause Not Discussed—The discovery that the Maloney bill contains a loophole for "reforms" has created much excitement in Washington. The clause

hadn't been discussed during hearings, nor did it interfere with quick passage of the bill by the Senate. The phrase could readily be cleared up in the House where the bill now reposes.

On the other hand, suspicions are growing that if the bill becomes law, it could well create an agency of such dimensions that even the so-called crusaders would find a place in it. Also, rumors still persist that Joseph Weiner ex-chief of the Office of Civilian Supply (BW—Apr. 17 '43, p17), will get a job under the proposed superagency as chief legal adviser.

Something for All

Each faction gets a little in grade-labeling order on rayon hosiery as revised, but most of them still aren't happy.

Tension surrounding rayon hosiery price ceilings, bitterly contested since the first of the year when OPA set them up with provisions for standardization and grading (BW—Jan. 2 '43, p58), is such that no one appreciated the fact that the thrice-amended, once-postponed MPR 339 was something of a three-way victory.

Something for Everyone—As the order stood when it went into effect last week, (1) OPA has a moral victory in the inclusion of the principle of grade labeling; (2) hosiery producers, whole-

salers, and retailers have an opportunity to move out grade B inventories (grade A prices) before mandatory labeling becomes effective (June 15 for wholesalers, July 15 for retailers); (3) consumers pay from 9¢ to 40¢ less for every pair of top-grade rayons; savings on lower-price lines are less.

Nevertheless the industry was totally unprepared for the order when it became effective May 15. Expecting another postponement and subsequent amendment right up until the deadline, industry leaders still concentrated on challenging the constitutionality as well as the logic and workability of MPR 339.

Customers Standoffish—Salesgirls who worked into the night on May 14 tagging stockings as to gage and ceiling price felt ill-rewarded the following day when customers refused to buy at \$1.10 a hose for which they were accustomed to paying \$1.35. "Haven't you something better?" was the standard reaction.

No 1 project of the trade is to move grade B inventories before labeling is required. Hosiery in stock, manufacturers contend, is generally superior to grade A standards, but may, by falling short of one specification, suffer from the grade B stigma. In a letter to the National Assn. of Hosiery Manufacturers last week, Price Administrator Prentiss M. Brown promised reexamination of MPR 339 in operation and consideration of such proposals as the classification of "AA" for hosiery exceeding minimum specifications for grade A.

Bar to Extra Quality—As the ceiling stand, manufacturers claim they can not afford to make hose of high-twist yarns or that exceed minimum standard grade A in any other respect. However, some reinforced welts and feet of cotton or spun rayon are still being made, because OPA does allow a small markup for such extra-quality construction. Highest hope of the industry, of course, is that the whole grade labeling question will be dropped after hearings on that subject which begin May 24 in Washington.

OPA's success in establishing grade labeling has turned out to be something of a hollow victory inasmuch as a separate order (L-274)—designed by WPB as a fabric conservation measure rather than an adjunct of price controls—sets minimum production standards which forbid manufacture of women's rayon stockings that fall below OPA's grade A specifications. Thus the grade B price schedule does not apply to hosiery produced after the effective date of L-274, also May 15, but affects only stocks now on hand.

Paint 'Em On, Girls—Meanwhile producers of 150 different brands of newly launched liquid cosmetic stockings are advertising heavily to capture what they can of a confused market.



OPA'S CHECKER UPPER

To observe food rationing's effect on civilians at first hand, OPA has an "official housewife" who gets paid for shopping. She is Mrs. Philip Crowlie (above) of Huron, S. D. Now touring

the nation's representative marketing areas, the official shopper has visited a Washington (D. C.) supermarket and the world's largest ration board at New York. Mrs. Crowlie's advice to housewives: Save points on fresh foods; buy coffee one pound at a time.

Crop Hopes Fade

Vegetables for sale fresh will be 14% below last year, but there's a good gain in acreage truck for canning.

Truck growers are being jolted by the shortages of labor, machinery, and fertilizer as their fellows who raise grain, corn, or livestock. Effects of these shortages are even more keenly felt in the vegetable fields, because vegetables require lots more man-hours per pound product.

Home Gardens to Help—Consequence of the Dept. of Agriculture's last-week estimate that total 1943 production of commercial truck crops for the fresh vegetable market will be 14% below 1942 production. Total tonnage of commercial vegetables produced this season date is officially estimated at 11% below the same period last year, with carrots and snap beans about the only market vegetables now expected to show increases. The decrease in commercial truck crops will be offset by increases in home gardens, but the D. of A. does not venture an estimate on the extent of this offset.

The reduced production is primarily attributable to reduced plantings, secondarily to weather conditions. Frost damage nipped early southern garden truck and fruit buds as far north as Michigan. A wet, cold spring has set back the crop seasons by at least three weeks in the northern states east of the Mississippi River. A long-drawn-out dry spell last week was cutting potato yields.

Texas and damaging crops almost everywhere south of the Ohio River. **Planting Plans**—Intended acreages of major vegetables for canning, freezing, and dehydrating were well ahead of last year when the D. of A. totted up farmers' plans in March and early April: green peas and sweet corn up 5%, tomatoes 2%, snap beans 19%, beets 6%, but cabbage almost 100%, pimientos 9%. Pickle cucumbers and spinach show decreases.

Last year established record packs for most of the important canned vegetables, helped along by unusually high yields per acre, as the following figures (canned pack, millions of cases) show:

	1941	1942
Snap Beans	13.4	23.9
Corn	26.1	32.1
Carrots	28.7	35.3
Tomatoes & Tomato Juice ..	55.2	66.2

Sweeteners—In view of prevailing difficulties, the department expects that 1943 packs of major canned vegetables may not exceed the 1942 records, despite vigorous programs of propaganda and price subsidy to wheedle farmers



ACRES OF EGGS

With bomb production exceeding the Air Corps' tremendous delivery capacity, factory inventories are now counted by the acre. At the Ellwood plant, Joliet, Ill., storage yards (above)

are comfortably glutted with 2,000-lb. junior blockbusters awaiting shipment. Mindful of its supply, the Army reports that four-engined bombers are being fitted with new wing mounts and larger bomb bays—to carry the record load of ten tons.

into maximum effort. Support prices (dollars per ton) announced by the D. of A. are much higher this year than last:

	1942 Average	1943 Range
Snap Beans	\$75	\$80-110
Sweet Corns	13.50	17-28
Green Peas	63.93	64-90
Tomatoes	19.37	22-27

Sad fact is that, large as the intended plantings are and much as they exceed last year's acreages, many of the most important crops fall far short of the official goals. Sweet potato intended acreage as of Mar. 1 was 15% above 1942, but 19% below the D. of A. million-acre goal. Dry beans are 16% over 1942, but 25% below the goal. Potatoes are 14% over 1942, but 2.7% below the goal. Cabbage is 8% below last year, though the goal requested an increase. Onions are 17% below last year.

• **They Tried to Get More**—On many of the more important vegetable crops, the D. of A. support prices, averaging 20% to 50% above last year, were announced after the intended acreage had been counted—they were set high to boost acreage above these figures.

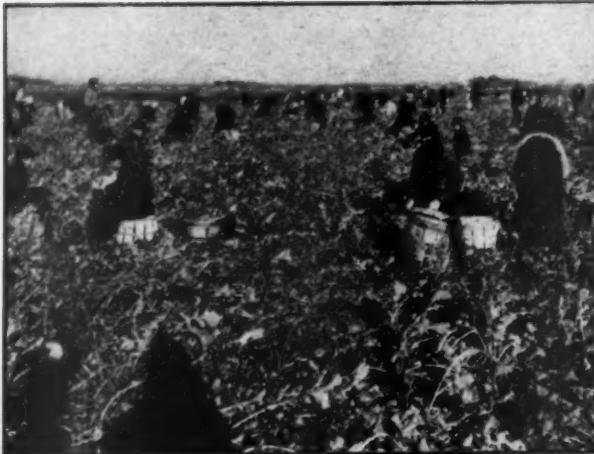
Consequence of military and lend-lease withdrawals from the total harvest is expected to be a substantial curtailment in civilian per capita consumption of many vegetables. Granted an optimistic per-acre yield, civilians next year will get under 130 lb. per capita of white potatoes, as compared with 125 lb. this

year and a 10-year average of 131 lb. • **Other Percentages**—Sweet potato civilian supply per capita will fall below the ten-year average consumption. Dry bean civilian supply will be 10% to 15% below recent years. Cabbage and onions for fresh consumption by civilians will be 20% below 1942, in part because large tonnages will go to dehydrators.

Truck crops continue to yield high prices, even at prevailing ceilings, in part stimulated by consumers' shift away from rationed canned and frozen items. Supplies of some fresh vegetables have thus far been relatively more abundant than last year, notably snap beans, carrots, green peas, and green peppers. Supplies of cabbage, cantaloups, watermelons, cucumbers, eggplant, onions, and lettuce are expected to be considerably smaller than last year.

• **Causes of Shifts**—Some of these shifts are in line with shifts in official production goals. Others reflect farmers turning to crops that require less hand labor, or that permit spreading the harvest over a longer period than for the more perishable species. Examples are the shift away from onions and lettuce, the increase in root crops which can be harvested pretty much at the grower's convenience.

Present prospects for fruit crops are none too promising, although the citrus production is turning out better than early estimates. Late killing frosts damaged many fruit buds and blossoms, especially in southern and middle-tier states.



When the turnip crop proved too much for the local labor supply last fall, Seabrook equipped four big vege-



table trailers with 80 seats each to carry school and college students to the fields. The farm plans to repeat this year.

15,000-Acre Victory Garden

Seabrook Farms, big business for a long time, plans still larger output this year; yet there are manpower and pay-freeze problems. War Dept. is largest customer these days.

This week end, weather and labor permitting, they will begin harvesting their first crop of 1943 peas at Seabrook Farms, known to agriculturists everywhere as the "world's largest truck farming enterprise." Rushed from the fields to the "viners" in specialized hauling units of a 415-car fleet of trucks, tractors, trailers, and passenger cars, and thence to the gigantic plant of Deerfield Packing Corp., the shelled peas will start pouring in accelerating streams through three separate and distinct processes—quick-freezing, dehydrating, canning—while still "field fresh."

• **Big-Scale Industry**—On or about June 19, and a week or two before the last of the peas are harvested, snap beans will be ready for harvesting and processing. Beets are scheduled for July 1; sweet corn for July 15. "Scheduled" is the word, because Seabrook Farms is big business, operated with the same kind of preplanning and cool, scientific, businesslike forethought as Big Steel or any other large industrial operation. Excepting only the mechanized farms of the U.S.S.R., the farms are almost undoubtedly the most industrialized in either hemisphere.

From a business and legal viewpoint, the 15,000 acres of owned and leased farm land a few miles out of Bridgeton, N.J., which constitute Seabrook Farms, are operated as the Farms Division of Deerfield Packing.

• **Other Farms Participate**—Practically at the geographic center of this acreage stands the processing plant on a 62-acre tract. It is equipped to handle not only

all the Seabrook production, but also all the produce of some 500 individual unincorporated farmers operating 15,000 more acres ranging from Cape May to Lancaster, Pa. Such contract growers are assisted by Deerfield with scientific agricultural advice, seeds, and fertilizer when needed. Costs of seeds and fertilizer are deducted from checks for the produce.

Bigest customer these days is the War Dept. which through the Quartermaster Corps (and thence to the Army, Navy, and lend-lease) has requested and contracted for 100% of all dehydrated products, plus 75% of the canned and 50% of the quick-frozen pack. Big private customers include General Foods' Frosted Food Sales Corp., which took over a quarter by weight of 1942 production, Beech-Nut Packing, Standard Brands, Campbell's Soup, Heinz, National Dairy, A&P, Francis H. Leggett, and Seeman Bros. Volume figures are subject to military censorship.

• **The Top Executives**—Founder, chief owner, and president of the enterprise is Charles F. Seabrook who began his pioneer work in scientific, industrialized farming back in 1912 with some 60 acres. Executive vice-president and general manager is Cornell-trained T. E. Milliman, former chief agronomist of Co-operative G.L.F. Exchange, Inc. (one of the largest farmer-owned supply and marketing firms), who joined the organization this spring after 17 months in Washington with OPA and WPB.

With them as vice-presidents are three Seabrook sons: B. L., on leave of

absence in Australia as a major in the Quartermaster Corps; J. M., general manager of the Farms Div.; C. C., sales manager.

• **Music as They Pack**—Unlike any farm you probably ever saw, but like almost any big business, the Seabrook operation (official name and address is now Deerfield Packing Corp., Seabrook Farms, Bridgeton, N.J., but it will undoubtedly continue to be known as just Seabrook Farms) has a group-life and hospital insurance plan for its employees, em-

THE PLANTING SCHEDULE

Peas—Mar. 10 through Apr. 15; harvest begins ten weeks after Mar. 10.

Beets—Apr. 1; first harvest July 1.

Sweet corn—Apr. 15 (one crop); harvested July 15.

Snap beans (green and wax)—Apr. 15, with weekly plantings to June 30; harvest begins about the middle of June.

Lima beans—May 10, with weekly plantings to July 4; first harvest Aug. 1; final harvest Oct. 15.

Turnips—July 20 to Aug. 5, in conjunction with cover crops of crimson clover.

Ford Hook beans (big limas)—May 30.

Spinach—Aug. 15 to Sept. 15; harvest Oct. 1 to Dec. 1.

Asparagus and tomatoes—Although New Jersey is a big tomato and asparagus state, Seabrook plants neither. It, however, quick-freezes and cans large quantities of asparagus bought from contract growers, raises tomato plants for sale to other growers.

THIS ISN'T NECESSARY

"He's the star of that quiz program--I just signed him up for the accounting department!"



YOU CAN RENT COMPTOMETER EQUIPMENT!

- Even though you're unable to *buy* Comptometer adding-calculating machines, you needn't go around robbing cradles. Because you can *rent* Comptometer equipment for limited periods of time.
- Your local Comptometer Co. representative will gladly explain this important and economical service. Or you may prefer to write to Felt & Tarrant Mfg. Co., 1733 N. Paulina Street, Chicago, Illinois.

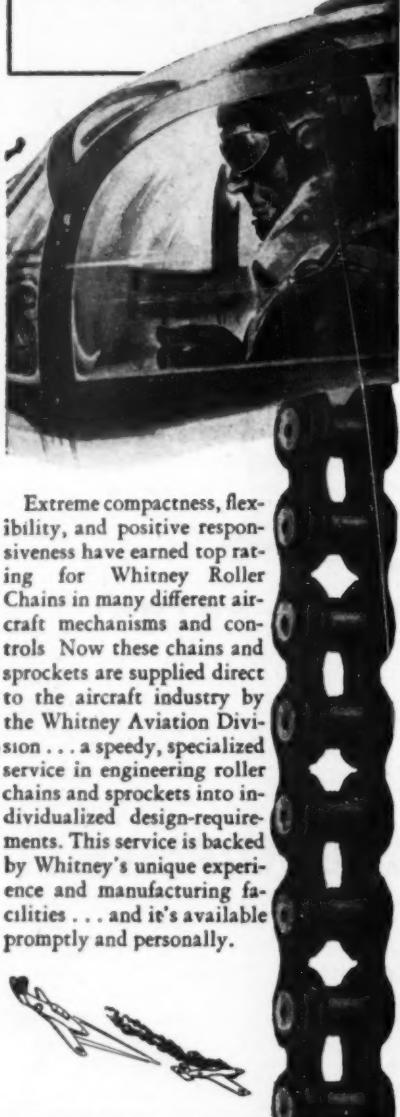
COMPTOMETER
REG. U.S. PAT. OFF.
ADDING-CALCULATING MACHINES AND METHODS

**When the Pilot
wants "31° West"**

WHITNEY

AIRCRAFT CHAINS

answer "Yessir"



Extreme compactness, flexibility, and positive responsiveness have earned top rating for Whitney Roller Chains in many different aircraft mechanisms and controls. Now these chains and sprockets are supplied direct to the aircraft industry by the Whitney Aviation Division . . . a speedy, specialized service in engineering roller chains and sprockets into individualized design-requirements. This service is backed by Whitney's unique experience and manufacturing facilities . . . and it's available promptly and personally.

THE WHITNEY
Chain & Mfg. Co.
Hartford, Conn.
AVIATION
DIVISION

ploys public relations counsel, enjoys amicable relations with a union, is installing a piped-music system in the plant.

Right now, the biggest single job facing Milliman as a newcomer is bringing his work crew up from a winter average of 1,550 men and women to the 7,500 required for full production this summer—approximately 1,500 more than last year. Migrant labor is practically out this year.

• **Controlled Migration**—Under the rules of the government's Farm Extension Service, which superseded the Farm Security Administration in the apportionment and control of mobile farm help, any workers from a given county in a state must be certified by the county agent as excess labor before they can leave the state to go to another. And no county agent is willing to face the wrath of his local farmer friends by draining off an apparent excess and possibly producing a shortage later in the year.

Upshot is that Seabrook is about to go on the New Jersey air through radio station WSNJ (Bridgeton) for all the help it can get from inside its home state lines, plus any nonfarm workers that it can wheedle away from nonessential occupations in other states. Implementing the radio program and classified advertising in all the papers for miles around is an institutional campaign using four-column space in several New Jersey newspapers.

• **Students to Be Sought**—Last summer and fall, Seabrook was able to sell considerable numbers of high school and college students, from as far west as Philadelphia, on the idea of spending all or part of their vacations in the fields, and it hopes it can repeat. During the winter, several trailers normally used for hauling food have been equipped with seats for "commuting" 80 save-the-crops farm workers at a crack.

Right now, it is dickering with a nearby summer resort hotel—equipped



An army of diesel "cats" makes short work of cultivating 15,000 acres.



One plane can dust or spray one acre in almost exactly four minutes.

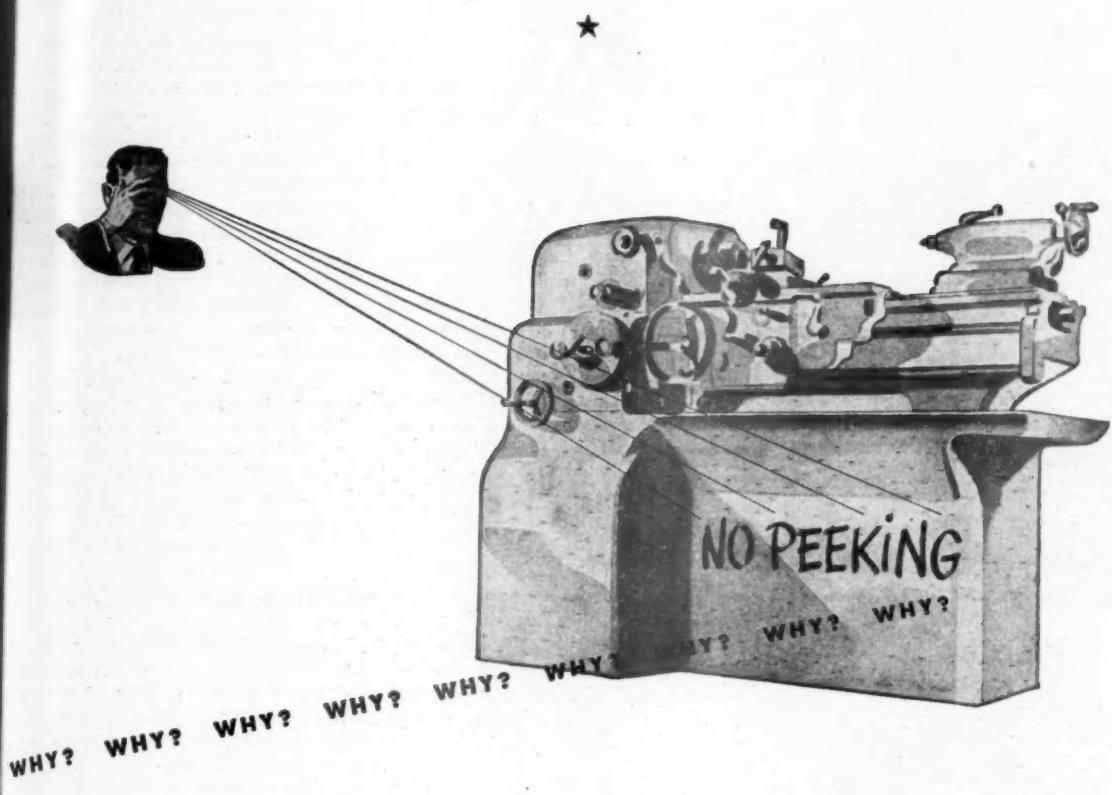
with lake, roller skating rink, and juke boxes—for its entire facilities. It has already taken over a government CCC camp and installed a house mother to look after "her boys and girls." No charge is made for lodging at the camp.

• **Workers Unionized**—Although Seabrook executives appreciate that they cannot match the wages of skilled factory workers dollar for dollar, they can point to a good scale for farm and food-processing workers and excellent labor relations of long standing (BW-Mar. 22 '41, p68). Permanent employees are members of Local 56, Meat and Cannery Workers Union, unit of the Amalgamated Butcher Workmen of America A.F.L. The checkoff is used; seasonal workers and those taking jobs in plants or farms for short periods are issued working permits by the union for which they pay 25¢ a week if they earn \$10 or more. In other words, if the weather prevents the accumulation of a full pay envelope in a given week, no charge is made for the permit. Negro workers have the same company and union status as white workers.

Field workers this year will work under a new minimum scale of 45¢ an hour for women, 50¢ for men—increases of 10¢ each over last year. Boys under 18 will get a minimum of 45¢.

• **Cannery Problem**—Plant workers, whose minimums have been governmentally frozen at last year's rates of 40¢ for women and 42½¢ for men, may be considerably harder to recruit unless the National War Labor Board gives the green light to increases which have been the subject of petition for some time. One meal a day in the corporation's cafeterias is provided free to all workers in the middle of the shifts which, at the height of the season, run around the clock—6 a.m. to 6 p.m. and from 6 p.m. to 6 a.m. Huge floodlights are used for night work.

Two to three crops a year on all the 15,000 acres except those devoted to apple orchards necessitate extreme caution to prevent soil bankruptcy. The whole project is mapped and divided



WHAT'S SO SECRET ABOUT A MACHINE TOOL, ANYWAY?

Must *Close It Up* also mean *Cover It Up*?

How much easier it would be to inspect and maintain a machine if you could *see through* to vital working parts.

That goes for hobbing, milling, broaching, automatic screw machines . . . for drills, grinders, turbines, looms, gear boxes . . . your own machines.

Why not open them up with glass? Keep an eye on their operation, on wear, on lubrication. Catch the little things before they become big headaches?

Glass is ready to take over such applications. Right now. As a plus to unequaled and lasting transparency, research has fitted glass with an iron constitution, and

has added other amazing qualities which make it ready to do business for you in places you never thought of before.

When you design or redesign *anything* for industry, for the home, or for any structure, just remember that today there is a *transparent* material with unusual qualities of surface hardness, of strength, weathering, and permanence. This material combines a variety of chemical and physical properties found in no other substances. *It's glass. L·O·F Glass* to be precise.

Not the glass of your boyhood. Flat glass has come of age, too.

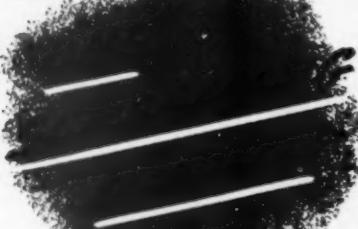
Won't you write us about any possible use of glass that may appeal to you, no matter how revolutionary or unusual? That's the way to really find out. Libbey·Owens·Ford Glass Company, 853 Nicholas Building, Toledo, O.



LIBBEY·OWENS·FORD
A GREAT NAME IN *Glass*



EVER HAD



TO INSPECT A PLANE?

★ Jap Zeros are approaching—American planes zooming to attack—soon vitally-needed planes slip in for quick, emergency inspection. No need to say it must be lightning fast—faster than a pit stop at the Indianapolis Speedway. Inspection cover plates and fuselage sections—equipped with quick-acting clips—are snapped off in a split second.



No sticking from corrosion—no breakage from improper material—no loss of tension from incorrect design! That's why so many American plane manufacturers are using this Spring Clip—and that's why we at Muehlhausen feel such vast pride in each Allied aerial victory. **MUEHLHAUSEN SPRING CORPORATION (Division of Standard Steel Spring Company), 775 Michigan Avenue, Logansport, Ind.**

MUEHLHAUSEN
SPRINGS

EVERY TYPE AND SIZE

into units of approximately five acres each. From these, soil samples go regularly to laboratories where, under the supervision of Dr. Frank App, director of research and development, all fertilizer requirements are determined and acted upon.

• **Beef Byproduct**—To the care and feeding of such crops, the laboratories now have added supervision over the care and feeding of 1,000 Hereford steers. They are brought in from western ranches as calves weighing 200 lb. to 300 lb., fed on grain and vines from which peas have been shelled until they weigh about 1,200 lb. Three economic ends are served by the operation: production of prime beef for a hungry market; disposal of vines, discarded by many canneries to rot; and production of manure for fertilizer.

Just completed is a test of spinach grown this spring in huge greenhouses. Soil, taken from the four divisions of the farms on which spinach is normally produced, was used with the object of determining the minimum amount of nitrogen (made scarce by explosives requirements) needed to produce spinach of maximum nutritive value. Truck farmers everywhere are awaiting results which have not yet been completely ascertained.

• **Airplanes Dust the Crops**—Mechanical equipment for an industrialized farm operation bulks large in quantity and variety. Contrary to some reports, no airplanes are owned by the organization, but four of them were operated last year for field dusting and spraying under contract with Wilson Air Service. One has already begun work this year, covering an acre every four minutes, and more will be put on as required.

In addition to the 415 units of rolling stock for haulage, 50 diesel "cat" tractors and 66 wheeled tractors are required for plowing, cultivation, what-have-you. The planted acreage this year will run between 3% and 5% ahead of 1942. Seabrook executives accent the word planted, meanwhile hoping against hope

that they can secure all the workers necessary for the harvest.

• **More Quick Freezing**—Censorship forbids setting forth precise data on the operation and equipment of the processing plant. Ever since Clarence Birdseye conducted much of his experimentation on quick-freezing in cooperation with the Seabrooks, their plant has been one of the largest factors in the production of frosted foods. Big as its output has been in years past, new machinery has been installed for a 15% increase in 1943. Canning operations depend on the number of government-allocated containers made available.

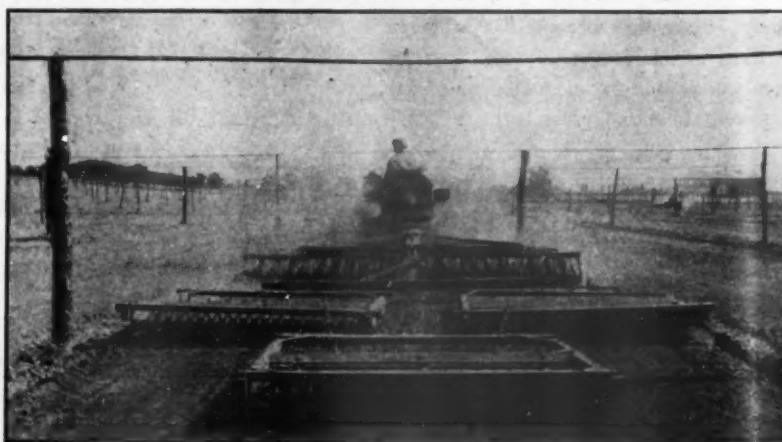
Dehydration output is expected to jump 900% over 1942. For one thing Seabrook was not able to secure equipment for full operation until rather late in the year. For another, three huge new tunnel dryers are just getting their finishing touches to supplement the output of dozens of large cabinet dryers.

REPRIEVE FOR ONIONS

Large-scale vegetable producers, hard up for labor, are welcoming a new spray developed by the University of California Agricultural College, which kills weeds in fields of onions and garlic with a minimum of hand labor. Ordinarily, weeding is done by hand at a cost of from \$30 to \$100 an acre; with the weed killer spray, cost runs from \$8 to \$10 an acre.

A refinement of a chemical called "Sinox," the spray was developed by R. W. Traynor of the university and A. A. Traveretti and P. Kantor, respectively farm adviser and agricultural commissioner of Monterey County, Calif.

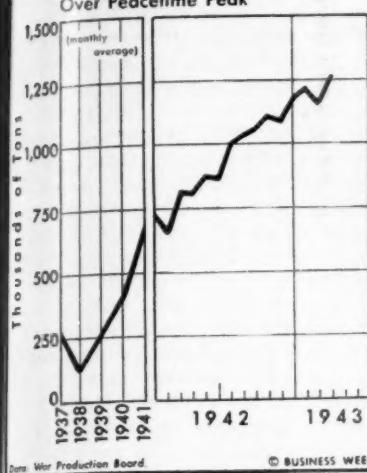
Fields are sprayed with the chemical which ordinarily is deadly to green plants. But young onions and garlic survive because their shoots are slender and erect. When the spray is directed straight downward, only a small amount hits the shoots—most of it lands on the broad leaves of the weeds, and the pest plants die.



It takes keen eyes and steady hands to guide a gang of harrows between the posts supporting overhead pipes used for irrigating acres of spinach.

ALLOY STEEL UP

War Jumps Output 400%
Over Peacetime Peak



© BUSINESS WEEK

March alloy steel production was 1,256,000 tons. How much more can we make? According to WPB's Steel Division chief, H. G. Batcheller: "Actually, our supply of alloying materials—molybdenum, tungsten, chrome, nickel, etc.—will support a monthly production of only 1,300,000 tons. But we are relying on the ingenuity of the steel industry to find ways of producing more steel with less alloy."

New Slant on Oil

OPA insists it would be cheaper to subsidize wildcat wells than to try to boost output by increasing the price.

Oil men have no idea of abandoning their fight for a general price increase, but some of them have reluctantly concluded that their chances for a complete victory are pretty slim.

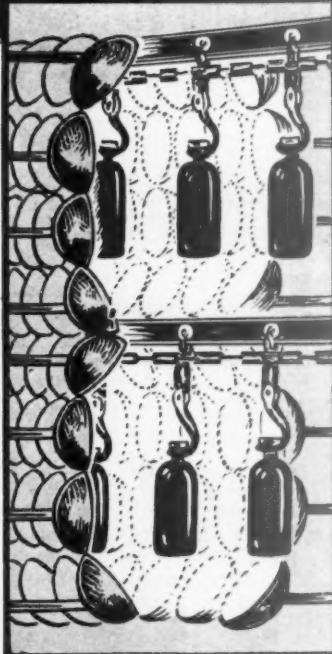
• **Door May Still Be Open**—The alternatives may not be as black as pictured by the oil industry's articulate and vigorous spokesmen in Washington. Price Administrator Prentiss M. Brown opened the door a little way when he admitted, in the course of turning down a formal recommendation for a general price increase and suggesting instead a government subsidy to encourage wildcat drilling, that new drilling must be stimulated.

An armistice in the long squabble over a general increase in the price of crude oil might include a drilling subsidy—perhaps a modification of the Brown plan or something else that wouldn't have the Office of Price Administration stigma on it—an extension

The Ceiling

WAS 7000...

LAMSON pushed it beyond
40,000!



Sketch shows how conveyors move cylinders through double bank of Infra-red lights, saving floor space and stepping-up production

Smashing bottlenecks is a familiar story to Lamson engineers

LAMSON CORPORATION

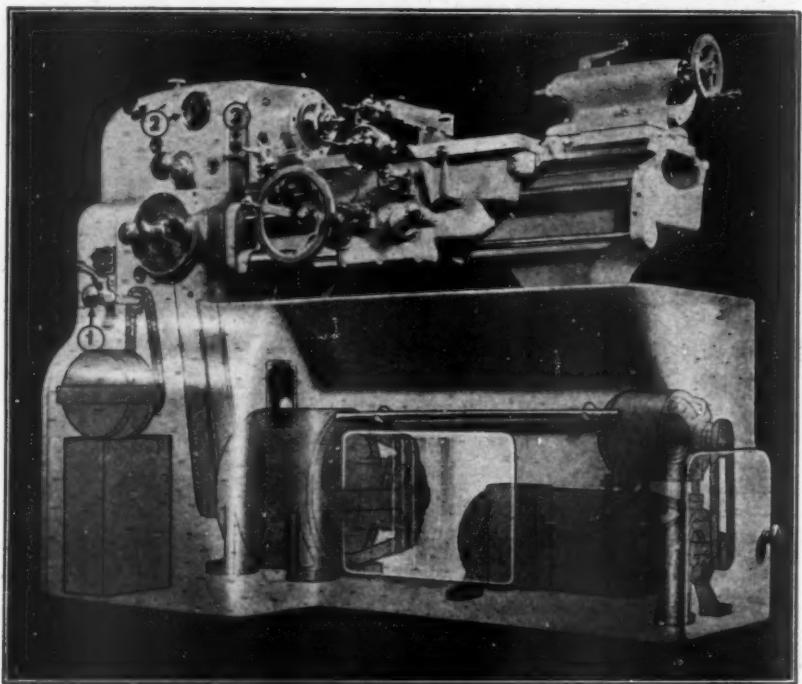
SYRACUSE, N. Y.

Makers of CONVEYORS and PNEUMATIC DISPATCH TUBES

NOW YOU CAN DESIGN MACHINE TOOLS
the way you've always
wanted to!



RELIANCE BUILT-IN ALL-ELECTRIC
V*S DRIVE ELIMINATES
GEARS, BRAKES AND CLUTCHES



*Precision Lathe with Built-In Reliance V*S Drive*

THE DESIGNERS of this all-electric precision lathe have made full use of the Reliance V*S Drive. Here's what they have:

A lathe giving spindle speeds from 5 to 2500 rpm. with but one gear change . . . All electrical equipment is built-in and arranged for connection to an a-c. circuit . . . Speed changes at the turn of a handle (1) . . . Spindle speeds indicated by a tachometer (2) . . . Spindle operation (starting, stopping, reversing), all controlled through the motor by a small switch on the headstock (3).

The V*S Drive is more than a source of power for machine tools. It provides speed control for spindle or table and for feed drives. It replaces change gears, reversing gears, brakes and clutches.

You, too, may find in Reliance V*S Drive the new design opportunities you have been looking for. Call in a Reliance Application Engineer or write for Bulletin 311.

RELIANCE^{AC}_{DC}MOTORS

RELIANCE ELECTRIC & ENGINEERING CO.

1069 Ivanhoe Road • Cleveland, Ohio

Birmingham • Boston • Buffalo • Chicago • Cincinnati • Detroit • Greenville (S.C.) • Los Angeles • New York • Pittsburgh
Philadelphia • Portland (Ore.) • St. Louis • San Francisco (Calif.) • Syracuse (N.Y.) and other principal cities

of regional price increases in fields where higher prices could be justified by high-cost operations, plus other subsidies to help pay for repressuring and other methods of secondary recovery in pumped-out fields.

Another alternative heard in Washington this week proposes a possible government oil pool: The government would buy crude production at prices varying with production cost and resell to refiners at hold-the-line prices.

- It's up to Congress—Nobody really expected the OPA to grant the request of Harold L. Ickes, Petroleum Administrator for War, for a price increase of 35¢ a barrel at a time when Ickes, as Solid Fuels Administrator, was about to take over the coal mines in the Administration's hold-the-line maneuver. The only hope for a general increase now seems to rest in Congress.

Sen. Elmer Thomas of Oklahoma hints he may tack a rider calling for a 78¢ boost for oil on the \$59,000,000,000 war appropriation bill. Oil men don't expect to get that much, but such a proposal might have bargaining advantages.

- Subsidy Cheaper—Some PAW officials admit that, in principle, there is nothing wrong with the OPA's logic that the proposed price increase would cost the public about \$500,000,000 whereas the cost of subsidizing wildcats, even under the most liberal possible estimates, wouldn't exceed \$150,000,000. Further, a drilling subsidy is a more direct approach than a general price boost.

Brown, now definitely committed to the principle of holding the line against inflation by the use of government subsidies, offered the subsidy plan after his subordinates had talked it over with several operators, including some who think in terms of one new well at a time. These so-called little fellows may think twice before turning up their noses.

- Terms of the Subsidy—The Brown plan runs like this: In return for a quarter interest in possible production, the government would advance two-thirds the cost of drilling wildcat locations. If the wildcat turned out to be a dry hole, the drilling company would owe the government nothing. If it turned out to be a producer, the operator would have the option of giving the government one-fourth of all production or of buying Uncle Sam out at \$7 for each \$1 advanced.

The trouble with this scheme, according to oil men whose opinions are reflected by the PAW, is that it would be fairly easy for any sharp operator to run his costs up to a figure where he could make a profit out of dry holes and, besides, who is going to determine costs?

- OPA Isn't Worried—Proponents of the OPA-Brown plan answer that national interest demands holding the line against price boosting and that

GRAIN TO GASOLINE

Savage, Minn., claims some sort of a record in the recent launching of a Navy vessel 1,900 miles from salt water. Star of the event was the good ship Agawam, a 320-ft. auxiliary oil tanker destined for service with the fleet. The Agawam splashed sideways into the fresh water of the Minnesota River.

After outfitting, it will be floated via the Mississippi to the Gulf of Mexico and a briny destiny. The keel was laid Sept. 7, 1942, only six months after the first surveys for the shipyard site. The Agawam is the first of six tankers scheduled to be built in the Savage yard.

Sidelight: The Agawam and its sister tankers are being built by Cargill, Inc., of Minneapolis, one of the country's largest grain merchants.

shenanigans are always a problem but can be dealt with.

Outside observers, however, are impressed with the view held privately by some PAW officials that the OPA now has more administrative headaches than it can handle, and if the OPA tries to police costs of wildcat drilling, factional disputes, both in the industry itself and between PAW and OPA, might get out of hand.

Despite this stand, OPA already has sanctioned regional price increases to take care of local situations. In an old producing area near Lima, Ohio, where wells were pumping less than ten gallons daily, in Pennsylvania grade crude, and in heavy California crude, price increases up to 25¢ a barrel have been allowed.

• Difficulty with Materials—As a general policy, OPA argues that the financial statements of the oil companies show that the business of oil production in general is profitable at the present price level. The reason that the country isn't getting the 4,500 new wildcats that PAW figures we need, according to this line of reasoning, isn't the price so much as the difficulty in getting materials and manpower.

There is a special shortage in "shooting crews" who determine underground structures—but not oil pools—with the aid of seismographs and other instruments.

• New Pipeline Considered—However, mere increase in production wouldn't be helpful without additional transportation facilities. One project under consideration would pipe additional oil from west Texas to midcontinent refineries and pipeline terminals.

Just as the PT Boats are streamlined for speed in carrying out their important war duties, so Whiting Victory Cranes are streamlined in construction to get into service in the shortest possible time.

TO SPEED THE VICTORY,
SPECIFY
WHITING
VICTORY
CRANES

Whiting Victory Cranes are helping to speed the handling of materials in war plants that might still be depending on out-of-date methods . . . except for the speed with which Victory Cranes are produced.

The need for cranes continues to be urgent. Whiting Victory Cranes are still coming from the production line in record time. Their performance fully justifies the far-sighted planning that brought them into production . . . and they are backed by the full Whiting guarantee.

Consult with Whiting about Victory Cranes to meet the emergency. Whiting Corporation, 15661 Lathrop Avenue, Harvey, Illinois.



BUILDERS OF QUALITY CRANES FOR NEARLY 60 YEARS

WHITING

CORPORATION

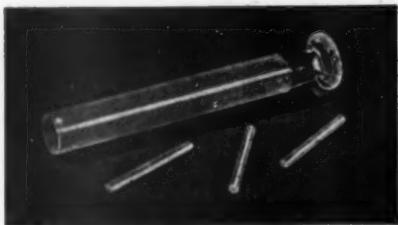
Quiet-Running
OVERHEAD
TRAVELING CRANES

PRECISION PARTS

A SHOT IN THE ARM MAY SAVE A SOLDIER'S LIFE

Precious blood plasma for the wounded, serums for the sick, narcotics to deaden pain—yes, hypodermic injections are vital life-savers on every battle front!

Today, the plungers for these hypodermic injectors are made of glass, centerless ground within a tolerance of ".0005" for roundness and dimension. The accuracy and finish of



Lives depend upon the accurate grinding of these little pieces of glass.

the centerless grinding is of the utmost importance. Any pitting or irregularity may permit air bubbles to get into the fluid and, in turn, be pumped into the blood stream with fatal results.

Accurately ground glass plays another important part in the war effort, too. Glass "go, no-go" plug-type gauges ground within a tolerance of ".0001" are helping manufacturers of vital precision parts for planes, tanks, guns and ships do a faster, better job.

Precision grinding of every type with amazing accuracy, ON A MASS PRODUCTION BASIS!—that's ACE's vital contribution to winning this war. Here is a great American plant with precision tools, centralized responsibility and sleepless ingenuity. Here is where to come for practically every operation in the manufacture of small parts where accuracy is required, both now and after the war.

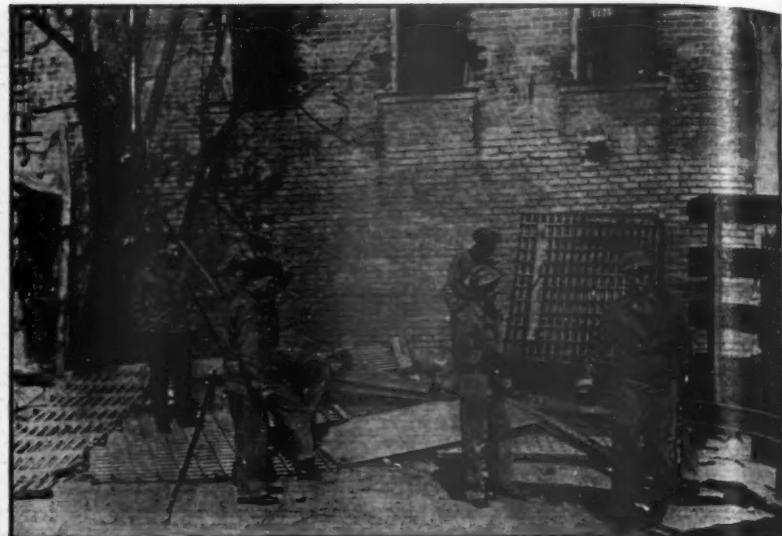
Inspection of each individual piece!



ACE
MANUFACTURING
CORPORATION
for Precision Parts

1211 E. ERIE AVENUE, PHILADELPHIA

30 • General News



SALVAGE SQUAD

Fully aware that the flow of scrap to steel mills is vital to its success, the Army is lending a shoulder to salvage efforts. When an old county jail at

Canton, Tex., was donated by local officials, soldiers of the Eighth Service Command's mobile salvage unit, one of the first of its kind, were called in to dismantle the old cell blocks and the grilled windows.

Sulfas Grow Up

FDA permits the sale of sulfa-bearing nose drops and bandages without prescription or warning label.

For the first time since the "elixir of sulfanilamide" disaster in the fall of 1937, the Food & Drug Administration has given its tacit approval to the sale of drug preparations containing sulfa compounds direct to the public. Without objection from Food & Drug, four pharmaceutical companies are marketing sulfathiazole nose drops for over-the-counter sale, while two companies are advertising finger bandages dipped in sulfathiazole.

• **Solvent Blamed**—This represents a sharp departure from the policy established by FDA in the summer of 1938 immediately after enactment of the food, drug, and cosmetic law. Passage of the law has been attributed to the nation-wide attention focused on the "elixir" tragedy.

Food & Drug's investigation of the disaster showed that the product consisted of a mixture of sulfanilamide in a 72% solution of diethylene glycol, and that the latter, which was actually used only as a solvent and carrier for the therapeutically active sulfa drug, was the poisonous ingredient. In addition, Food & Drug experts reported that a large number of the deaths resulted from use of the product even though taken on a

doctor's recommendation or prescription.
• **New Powers**—Among other things, the 1938 law gave Food & Drug the power (1) to say which drugs should be limited to sale only on a doctor's prescription, and (2) to prohibit the marketing of any new product until its safety had been carefully examined and established.

Any drug potent enough to do good also will do harm if its use is abused. Food & Drug judges safety in terms of whether the chances of good outweigh the chances of harm under the dosages recommended. On this basis, Food & Drug ruled in 1938 that all compounds and preparations of the sulfa family could be marketed only with the prescription legend "to be used only by or on the prescription of a physician, dentist, or veterinarian" on the label. This meant that, if retail druggists followed the law, they were barred from selling the products for self-medication.

• **Must Prove Safety**—As an additional safeguard, Food & Drug ruled that every product and preparation containing a sulfa was subject to a so-called "new drug application," the mechanism by which the manufacturer demonstrates the safety of a new product to the government. Applications had to be filed for all new uses and new mixtures of relatively old sulfa compounds.

By approving new drug applications for the sulfathiazole nose drops, Food & Drug abandoned its insistence on the "prescription legend." This means that anyone can walk into a drug store and buy them. However, the nose drops will not be advertised direct to the public. Even though they are intended for

.. ALL SET, EXCEPT FOR One Part you CAN'T GET?



IS progress blocked on your new product . . . is your present war production delayed . . . by one difficult part you can't get? Is it difficult to find equipment to make it fast enough, good enough, to the extreme standards of precision demanded in that part? Should special machinery be designed to make it . . . do you seek a qualified source of supply?

Contact KAYDON

The Kaydon plant is looking for just such problems! Equipped with broad engineering experience and unusual facilities for precision production and technical control, we are qualified to cooperate with your organization in coordinating part design and production methods, to improve use or to speed output. We can make those difficult parts on a high production, low-cost basis, assuring you of the extreme precision, top quality and on-time delivery you demand.

KAYDON ENGINEERING CORP.
31 CRACKEN STREET • MUSKEGON, MICH.

For excellence in production
of extremely precise, unusually
large ball and roller bearings.



Specialists in Difficult Manufacturing



BLAZING THE

**HOW ELECTRONIC TELEVISION WAS
CREATED BY RCA LABORATORIES...
HISTORIC STEPS IN THE EVOLUTION
OF THIS NEW SCIENCE**

BACK IN 1929 a modest man with a quiet voice calmly announced two inventions . . . two amazing almost magic devices that made it possible for radio to "see" as well as to "hear."

This man was Dr. V. K. Zworykin of RCA Laboratories. And his research in electronics gave radio its electronic "eyes" known as the Iconoscope and the Kinescope. The former is the radio "eye" behind the camera lens; the latter is the receiver's screen.

Since that red-letter day in television history, ceaseless research in the science of radio and electron optics has established RCA Laboratories as the guiding light of television.

The decade of the thirties saw television's coming-of-age. It brought new scientific instruments and discoveries; it developed new techniques of showmanship; it even created new words—televise, telecast, teleview, and telegenic.

In the evolution of television there have been "high spots"; historic milestones of progress; definite "firsts"—made possible by the services of RCA.

1928-1932—FROM THE FIRST EXPERIMENTAL STATION TO ALL-ELECTRONIC TELEVISION



Station W2XBS, New York, was licensed to RCA in 1928 to conduct television experiments. Transmitter located in Van Cortlandt Park, was later moved to Photophone Building, 411 Fifth Avenue; then to New Amsterdam Theatre until 1931, when operations were transferred to Empire State Building.

On Jan. 16, 1930, Television pictures were transmitted by RCA from W2XBS at 411 Fifth Avenue and shown on 6-foot screen at RKO-Proctor's 59th Street Theatre, New York.

Television station W2XBS, operated by National Broadcasting Company, atop New Amsterdam Theatre, New York, opened for tests July 7, 1930, with the images whirled into space by a mechanical scanner.

Empire State Building, the world's loftiest skyscraper, was selected by RCA as the transmitter and aerial site for ultra-short-wave television experiments using both mechanical and electrical scanners. Operation began October 30, 1931.

Field tests of 240-line, all-electronic television were made by RCA at Camden, N. J., with television signals relayed

by radio from New York through Mt. Arney, N.J., the first time, May 25, 1932.

1936—OUTDOOR TELEVISION



Television outdoors was demonstrated by RCA at Camden, N.J., April 24, 1936, with local fire participating in the program broadcast on the 6-meter wave.

All-electronic television field test RCA began June 29, 1936, from short-wave transmitter in Empire Building and aerial on the pinnacles releasing 343-line pictures.

Radio manufacturers saw television demonstrated by on July 7, 1936, with radio artists and films used to entertain

1937—ELECTRON "GUN"

Electron projection "gun" of RCA was demonstrated on May 12, 1937, to Institute of Radio Engineers, pictures projected on 8 x 10-foot screen.

Television on 3 x 4-foot screen was demonstrated to Society of Motion Picture Engineers on Oct. 14, 1937; pictures were transmitted from Empire State Building to Radio City.

Mobile television vans operated by RCA-NBC appeared on the streets of New York for first time, December 1937.

1938—BROADWAY PLAY TELEVISED



Scenes from a current Broadway play "Susan and God," starring Gertrude Lawrence, were telecast on June 1, 1938, from NBC studios at Radio City.

RCA announced on October 20, 1938, that public television program service would be inaugurated and commercial receiving sets offered to the public in April, 1939.

1939—BASEBALL—KING GEORGE VI—FOOTBALL

Opening ceremonies of the New York World's Fair televised by NBC on April 30, 1939, included President Roosevelt as first Chief Executive to be seen by television.

"A first from the diamond." Columbia vs. Princeton May 17, 1939, televised by NBC.

TELEVISION TRAIL



Improved television "eye" named the "Orthicon," introduced by RCA on June 8, 1939, added greater clarity and depth to the picture.

Television spectators in New York area on June 10, 1939, saw King George VI and Queen Elizabeth as the World's Fair, telecast by NBC.

Brooklyn Dodgers-Cincinnati game telecast by NBC on August 26, 1939, was the first major-league baseball game seen on the air.

First college football game—Fordham-Wayneburg—televised by NBC, September 30, 1939.

Television from NBC station in New York was picked up by RCA receiver in plane 20,000 feet over Washington, D. C., 200 miles away, October 17, 1939.

Television cameras of NBC scanned the scene in front of Capitol Theatre and in lobby at premiere of motion picture "Gone With The Wind," December 19, 1939.

1940—HOCKEY—COLOR—TRACK BIRD'S-EYE TELEVISION



Color television was demonstrated on February 6, 1940, to Federal Communications Commission by RCA at Camden, N. J.

First hockey game was televised by NBC camera in Madison Square Garden, February 25, 1940.

Basketball: Pittsburgh-Fordham, also NYU-Georgetown at Madison Square

Garden were televised by NBC, February 28, 1940, as first basketball games seen on the air.

First Intercollegiate track meet at Madison Square Garden telecast on March 2, 1940.

Using RCA's new, compact and portable television transmitter, a panoramic view of New York was televised for the first time from an airplane on March 6, 1940. Television sightseers as far away as Schenectady saw the bird's-eye view of the metropolis.

Premiere of television opera on March 10, 1940, featured Metropolitan Opera stars in tabloid version of "Pagliacci."

First telecast of religious services on March 24, 1940, from NBC Radio City studios, were seen as far away as Lake Placid.

Ringling Brothers-Barnum and Bailey circus viewed on the air, April 25, 1940, through NBC electric camera in Madison Square Garden.

Television pictures on 4½ x 6-foot screen were demonstrated at RCA annual stockholders meeting May 7, 1940, at Radio City.

Republican National Convention was televised on June 24, 1940, through NBC's New York station via coaxial cable from Philadelphia.

Democratic National Convention films rushed by plane from Chicago for NBC were telecast in New York, July 15, 1940.

President Roosevelt was seen by television throughout the Metropolitan areas as he addressed Democratic rally, October 28, 1940, at Madison Square Garden.

Election returns on November 5, 1940, televised for first time by NBC, showed teletypes of press associations reporting the news.

1941—COMMERCIAL TELEVISION



Television progress demonstrated to FCC on January 24, 1941, included: home-television receiver with 13½ x 18-inch translucent screen; television pictures 15 x 20 feet on New Yorker Theatre screen; pictures relayed by radio from Camp Upton, Long Island, to New York; also facsimile multiplexed with frequency modulation sound broadcast.

Television pictures in color were first put on the air by NBC from Empire State Building Transmitter on February 20, 1941.

Large-screen television featuring Overlin-Soose prize fight on May 9, 1941, at Madison Square Garden was demonstrated by RCA at New Yorker Theatre; also, on following days, baseball games from Ebbets Field, Brooklyn.

Commercial operation of television began July 1, 1941, on a minimum schedule of 15 hours a week. NBC's station WNBT, New York, the first commercially licensed transmitter to go on the air, issued the first television rate card for advertisers, and instituted commercial service with four commercial sponsors.

Entry of the United States in World War II, enlisted NBC television in New York to aid in illustrating civilian defense in air-raid instructions in the New York area.



1943—AMERICA AT WAR!

Today RCA Laboratories, pioneer in the science of electronics, is devoting all its efforts to the war.

Yet, from the discoveries, developments and inventions made under the urgency of war, will come greater wonders for the Better Tomorrow of a peacetime world.

RADIO CORPORATION OF AMERICA
RCA BUILDING, NEW YORK
CREATOR OF ELECTRONIC TELEVISION

Zoning Speeds Mail Deliveries

Business men should realize the greatest benefit from the decision of the Post Office to adopt the zoning scheme of addressing all mail matter by city and key-numbered station. For the elimination of multiple sorting operations implicit in the system, which has long been in force in England, inevitably will speed up deliveries.

• Add Zone Number—For the present, the system will be confined to 178 of the larger cities. As it catches on, it will be spread throughout the country. It differs from present ad-

dressing practice only in the insertion of the delivery zone number between the city and the state, as:

Business Week
330 W. 42nd St.
New York 18, N. Y.

To achieve maximum immediate benefit from the speedup, many companies in the affected cities already are exchanging key numbers, available from the local post office, with customers and correspondents. For their guidance, the full list of 178 cities is as follows:

Akron, Ohio	Honolulu, T. H.	Poughkeepsie, N. Y.
Albany, N. Y.	Houston, Tex.	Providence, R. I.
Alexandria, La.	Huntington, W. Va.	Racine, Wis.
Allentown, Pa.	Indianapolis, Ind.	Raleigh, N. C.
Atlanta, Ga.	Jackson, Mich.	Reading, Pa.
Atlantic City, N. J.	Jackson, Miss.	Richmond, Va.
Aurora, Ill.	Jacksonville, Fla.	Roanoke, Va.
Austin, Tex.	Jersey City, N. J.	Rochester, N. Y.
Baltimore, Md.	Kalamazoo, Mich.	Rockford, Ill.
Baton Rouge, La.	Kansas City, Kan.	Sacramento, Calif.
Battle Creek, Mich.	Kansas City, Mo.	Saginaw, Mich.
Berkeley, Calif.	Knoxville, Tenn.	St. Joseph, Mo.
Binghamton, N. Y.	Lancaster, Pa.	St. Louis, Mo.
Birmingham, Ala.	Lansing, Mich.	St. Paul, Minn.
Bloomington, Ill.	Lexington, Ky.	St. Petersburg, Fla.
Boston, Mass.	Lincoln, Neb.	Salt Lake City, Utah
Bridgeport, Conn.	Little Rock, Ark.	San Antonio, Tex.
Brockton, Mass.	Long Beach, Calif.	San Diego, Calif.
Buffalo, N. Y.	Los Angeles, Calif.	San Francisco, Calif.
Camden, N. J.	Louisville, Ky.	San Jose, Calif.
Canton, Ohio	Lynchburg, Va.	San Juan, P. R.
Cedar Rapids, Iowa	Lynn, Mass.	Savannah, Ga.
Charleston, S. C.	Macon, Ga.	Schenectady, N. Y.
Charleston, W. Va.	Madison, Wis.	Scranton, Pa.
Charlotte, N. C.	Memphis, Tenn.	Seattle, Wash.
Chattanooga, Tenn.	Miami, Fla.	Shreveport, La.
Chicago, Ill.	Milwaukee, Wis.	Sioux City, Iowa
Cincinnati, Ohio	Minneapolis, Minn.	South Bend, Ind.
Cleveland, Ohio	Mobile, Ala.	Spokane, Wash.
Columbia, S. C.	Moline, Ill.	Springfield, Ill.
Columbus, Ga.	Montgomery, Ala.	Springfield, Mass.
Columbus, Ohio	Mount Morris, Ill.	Springfield, Mo.
Concord, N. H.	Muskegon, Mich.	Stamford, Conn.
Corpus Christi, Tex.	Nashville, Tenn.	Stockton, Calif.
Dallas, Iowa	Newark, N. J.	Syracuse, N. Y.
Davenport, Iowa	New Bedford, Mass.	Tacoma, Wash.
Dayton, Ohio	New Britain, Conn.	Tampa, Fla.
Decatur, Ill.	New Haven, Conn.	Terre Haute, Ind.
Denver, Colo.	New Orleans, La.	Toledo, Ohio
Des Moines, Iowa	New York, N. Y. (Boroughs and Suburbs)	Topeka, Kan.
Detroit, Mich.	Niagara Falls, N. Y.	Trenton, N. J.
Duluth, Minn.	Norfolk, Va.	Troy, N. Y.
Elizabeth, N. J.	Oakland, Calif.	Tulsa, Okla.
El Paso, Tex.	Oklahoma City, Okla.	Utica, N. Y.
Erie, Pa.	Omaha, Neb.	Waco, Tex.
Evanston, Ill.	Pasadena, Calif.	Warren, Pa.
Evansville, Ind.	Paterson, N. J.	Washington, D. C.
Fargo, N. D.	Pawtucket, R. I.	Waterbury, Conn.
Flint, Mich.	Peoria, Ill.	Waterloo, Iowa
Fort Wayne, Ind.	Philadelphia, Pa.	Wheeling, W. Va.
Fort Worth, Tex.	Phoenix, Ariz.	Wichita, Kan.
Fresno, Calif.	Pittsburgh, Pa.	Wilkes-Barre, Pa.
Glendale, Calif.	Pontiac, Mich.	Williamsport, Pa.
Grand Rapids, Mich.	Portland, Me.	Wilmington, Del.
Greensboro, N. C.	Portland, Ore.	Winston-Salem, N. C.
Greenwich, Conn.		Worcester, Mass.
Harrisburg, Pa.		York, Pa.
Hartford, Conn.		Youngstown, Ohio

sale to the public without prescription they are being marketed by pharmaceutical companies which do no consumer advertising.

It is expected that the manufacturer of the leading proprietary nose drops will soon hit the market with their sulfathiazole preparations. When so do, the products will be advertised to consumers.

FCC Fireworks

Frontal attack against Cox as investigator rekindles feud over his holdings in Georgia radio station.

The precedent-making petition to the speaker of the House by Commissioner Clifford J. Durr of the Federal Communications Commission to qualify Rep. Eugene E. Cox of Georgia as head of a special committee investigating FCC stirred Washington last week. The petition is before the House Judiciary Committee, which won't do with it.

• Radio Stockholder—In the winter of 1941-42, while investigating another case, FCC investigators learned that Cox, although not of record at commission, was an important stockholder in station WALB, Albany, Ga. Value of this stock amounted to \$25,000. It was said to have been bought with money allegedly paid Cox for aiding the station to get its license from FCC. This would be in violation of federal statutes, and because of alleged violations of the communication act, the FCC went further into affairs of WALB.

However, Cox went on the attack charged FCC with "monstrous abuse of power" and called for an investigation. This year the House Rules Committee, of which Cox is an important member, reported out a resolution for an investigation of FCC which promptly won the large anti-Administration vote now prevalent in the House.

• FCC Staff Irked—Since then, the House committee's staff of investigators, headed by Eugene L. Garey, Wall Street lawyer, has irked members and staff of the FCC by their demands for information. Particularly have they annoyed Commissioner Durr who has made some tartly phrased correspondence between Garey and himself.

Last week, Durr startled blasé Washington by demanding that Cox be disqualified from the investigating committee on the ground that he has personal interest in a case involving renewal of the WALB license which is pending before the FCC, and that public statements in reference to the FCC ("nastiest bunch of rats in

country") show he is intemperate and not objective. Further, Durr contended, there is ample House precedent to bar the sponsor of an investigation resolution from sitting on the committee that finally does the investigating. What lent wallop to Durr's petition was a recital of Cox's interest in the affairs of FCC, plus photostatic exhibits of the \$2,500 check allegedly given Cox for his services with the congressman's endorsement.

Hearings Likely—Cynical observers doubt if the clubby House will go as far as Durr has asked, but it is believed that if no public hearings had been planned by the committee before there certainly will be now.



UNDERSTUDY

Most ship sponsors manage to crack traditional bottles of champagne over bows before the vessels slip down the ways—but a few miss. And as sailors have a deep superstition that an unchristened craft is outward bound for pure trouble, one Seattle yard hides a pinch-hitter (below) down near the keel just in case the feminine swing goes wild. No one has missed yet.



Rival for Tapioca

Waxy sorghum, developed in Texas, promises to bid for starch market now that supplies from Far East are cut off.

Out on the high plains of the Texas Panhandle, a research scientist at the Lubbock agricultural experiment station has evolved a waxy starch sorghum grain (kafir) to help replace tapioca starch formerly imported each year from the Dutch East Indies.

More Uses Sought—R. E. Karper, plant geneticist, recently gave up his job as vice-director of the Texas Agricultural Experiment Station system at Texas A. and M. to devote himself wholly to research on widening the uses of kafir plants.

Karper began 25 years ago, breeding new varieties of grain sorghums—those hardy, drought-resistant African forage plants introduced by the U. S. Dept. of Agriculture from the Sudan back in the eighties. Among his selections, as far back as 1930, was a kafir grain differing from others of its tribe in having a waxy endosperm—the nutritive tissue within a seed sac upon which the seed feeds.

Substitutes Needed—Since American food, textile, paper, plywood, and adhesive industries have consumed as high as 500,000,000 lb. of imported tapioca in a year, they are scouring the country to find a suitable substitute.

Tapioca starch is derived from the roots of the cassava or Manihot plant, which originally grew wild in the tropical forests of Brazil, but which, like rubber, was introduced by the Dutch into Java and Sumatra. The cassava plant has not been grown successfully in our southern states.

Planting Started—Twenty thousand acres of Karper's new Blackhull Waxy Starch Kafir, being planted around Lubbock this spring, are expected to produce about 500,000 bu. There will be about 5,000 acres in each of four counties—Castor, Lubbock, Bailey, and Terry. The program is directed by Glenn H. Le Doyt, general field agent of General Foods Corp.

The U. S. Dept. of Agriculture has sponsored similar experiments in starch production from waxy hybrid corn (BW-May 2'42, p64) since supplies of tapioca from the Orient were cut off. Ordinary cornstarch can supplant tapioca in a majority of its uses—as in textiles—but isn't suitable for adhesives such as can be derived from the waxy grains. Kafirs other than Karper's Blackhull will be grown on about 4,000 acres in Arizona, Kansas, and California; principal variety will be Waxy Club, according to the Dept. of Agriculture.

Swamped with Work?

Save Man-Power and Speed Production with

APēCO PHOTOCOPY MACHINE

Saves Time In Copying
Letters
Blueprints
Drawings
Work Orders
Specifications
Records
and other papers

Is your production being held up, slowed down or pushed aside waiting for COPIES of letters, blueprints, specifications, records, contracts and other papers? Here is a machine that multiplies Man-Power — releasing men, women and their equipment for other work.

SAVE MAN-HOURS USE FEWER EMPLOYEES

Speed up your production — Save valuable hours now spent on copying and tracing by making PHOTO-EXACT copies of any form at small expense. Get copies right in your own place of business, without delays. APēCO makes copies up to 18x22"—1 to 100 copies or more. No chance for error! Legally acceptable.

\$55
F.O.B. CHICAGO

FOOLPROOF OPERATION

With our simple instructions, any office boy or girl can produce perfect, photo-exact copies of anything written, printed, drawn or photographed. No special skill or dark room is needed.

PROMPT DELIVERY

On machines and supplies. Write for FREE folder now! Representatives in all principal cities and Canada.



AMERICAN PHOTOCOPY EQUIPMENT COMPANY
2849 N Clark Street Dept. B-6 Chicago, Illinois

DEPEND ON DODGE Power Transmission

for PEAK PRODUCTION

Does power-pilferage get by unchallenged in your plant? Put modern Dodge Power Transmission equipment to work . . . stop power losses . . . maintain peak production!

In the complete line of Dodge Bearings, Matched D-V Multiple belt drives and Sheaves, Flat Drive Pulleys and Shafts, Gears, Clutches, Conveyors, Shaving Collars, Couplings and other power transmission units, you will find "The Right Drive for Every Job". The equipment that keeps channels of power-flow clear . . . equipment that puts all the power into the job.

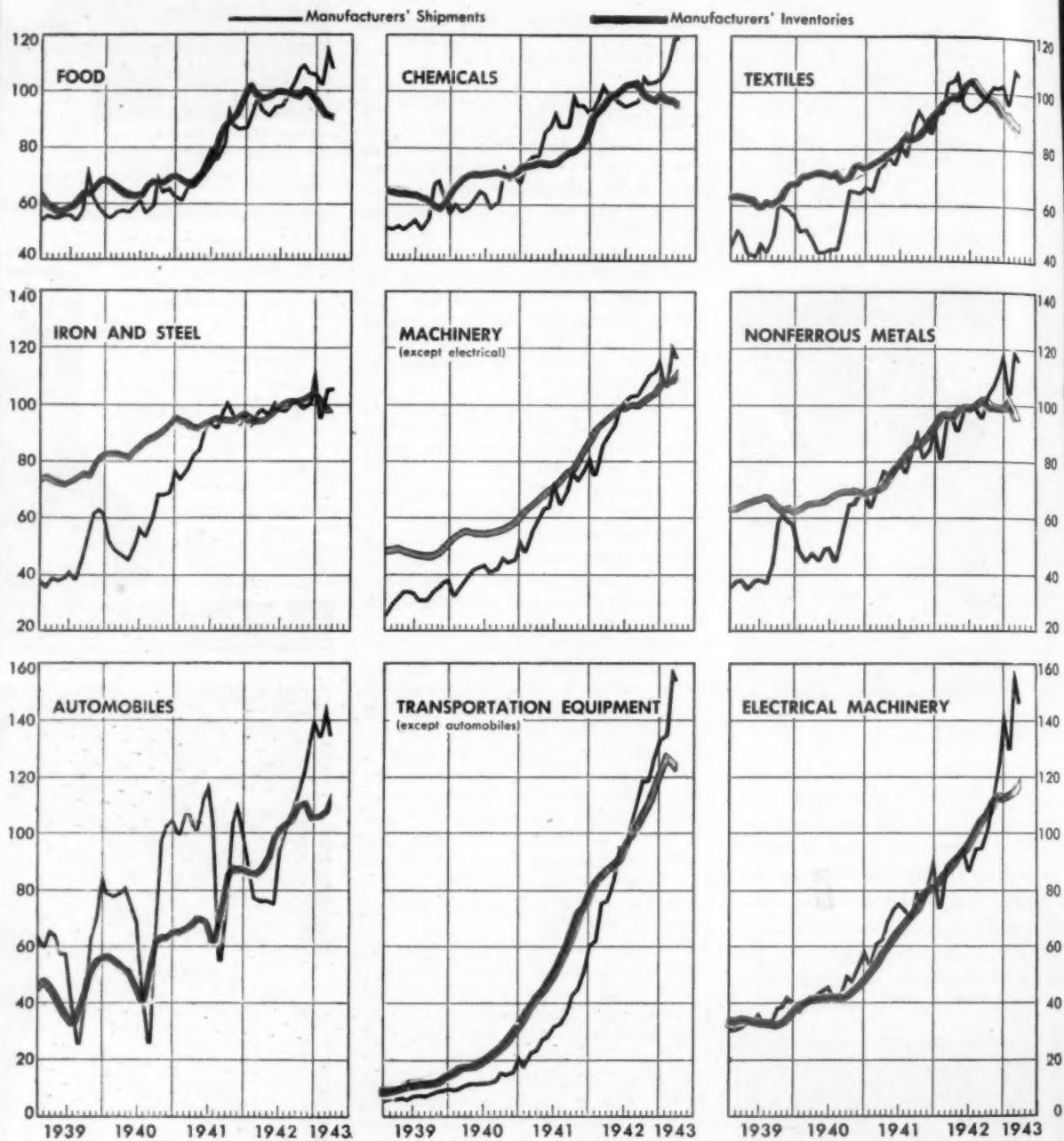
Contact your local Dodge Distributor for power transmission service and equipment engineered for 24-hour round-the-clock war production duty, or write to

DODGE MANUFACTURING CORPORATION
Mishawaka, Indiana, U.S.A.
Buy More U. S. War Bonds!

DODGE
MISHAWAKA
THE RIGHT DRIVE FOR EVERY JOB

TURNAROUND IN INVENTORIES

Manufacturers' shipments rise, but hoarding of stocks now gives way to depletion
(Indexes of dollar volume, 1942 = 100, not adjusted for seasonal)



Data: Department of Commerce.

Manufacturers now are living on the fat in their materials inventories. But, producers can't go on that way forever. When all the fat has been consumed, and stock piles pared to the irreducible bone and muscle of goods actually moving on production lines, output will have to be readjusted to intake (page 13). The business problem now—less for purchasing policy

than for operating plans and working-capital budgets—is to figure how much fat can last how long. Actually, the hand-to-mouth stage now approaching will be the fourth through which inventories will have passed in the course of the war. Until mid-1941, "normality" prevailed, during which shipments outstripped inventories; hoarding followed, ending in

late 1942; now, depletion is well under way. Where shipments have been relatively stable, the liquidation can be seen most readily—in food, chemicals, textiles, steel, nonferrous metals. But, even in munitions lines, stockpiles are falling behind shipments. Though required "in process" inventories are rising along with production, excess stocks are being drained.

"CLEAN SWEEP"

WESTERN UNION



MU 16 106 GOVT 3 EXTRA=CA WASHINGTON DC MARCH 1 1943 1012A
FAIRBANKS MORSE AND CO.,
BELOIT, WISCONSIN

DIESEL ENGINES OF YOUR MANUFACTURE POWERED THE US SUBMARINE WAHOO IN HER RECENT SPECTACULAR VICTORIES OFF NORTHERN NEW GUINEA. THE WAHOO SANK A JAP DESTROYER AND TWO DAYS LATER SENT TO THE BOTTOM A FOUR-SHIP ENEMY CONVOY, CONSISTING OF TWO FREIGHTERS, A TRANSPORT LOADED WITH TROOPS AND A TANKER. FOR THIS MAGNIFICENT FEAT THE WAHOO TODAY WEARS A BROOM AT HER CONNING TOWER -- THE NAVY'S TRADITIONAL DECORATION DENOTING A "CLEAN SWEEP". YOU WHO FURNISHED HER FINE DIESELS SHARE IN THE HONOR. THE BUREAU OF SHIPS TAKES PLEASURE IN EXTENDING SINCERE THANKS FOR THIS SPLENDID EQUIPMENT. NAVAL CRAFT AWAIT YOUR ENGINES. KEEP THEM COMING!

E L COCHRAN, REAR ADMIRAL U.S.N. CHIEF OF THE BUREAU
OF SHIPS.

1013A

We of Fairbanks-Morse appreciate Admiral Cochran's telegram giving Fairbanks-Morse Diesels a share in the honors won by the illustrious crew of the *Wahoo*. We are proud that our Diesels can serve with men so fearless—and pledge to keep Fairbanks-Morse Diesels coming for Navy craft. Fairbanks, Morse & Co., 600 S. Michigan Ave., Chicago, Illinois.



FAIRBANKS-MORSE

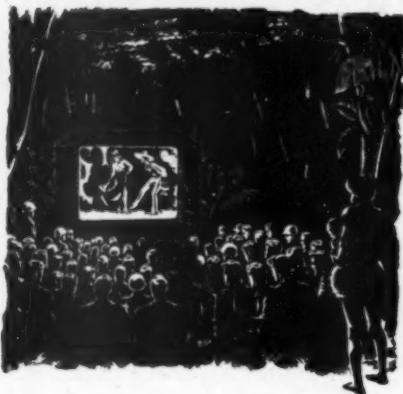
DIESEL ENGINES
PUMPS
MOTORS
GENERATORS
SCALES

WATER SYSTEMS
FARM EQUIPMENT
STOKERS
AIR CONDITIONERS
RAILROAD EQUIPMENT



Diesels

FOR AMERICAN FIGHTERS

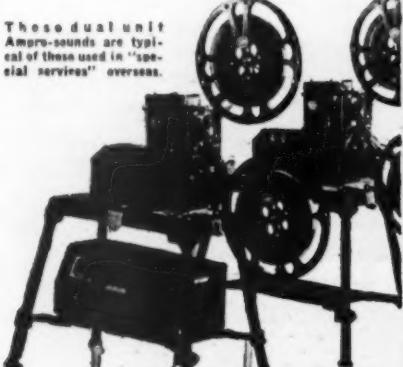


Sound Movies... IN THE JUNGLE

The above illustration is based on an actual set-up in New Guinea, one of a chain of theatres in which Red Cross Field Director James Stewart projects the latest sound films to American and Australian front line fighters.

Today, the Special Service units provide each overseas division of the U. S. Army with several complete portable 16 mm. sound projector outfits. Films are rushed to the various fronts via transport planes. In this way, U. S. fighters from the Aleutians to Tunisia, who consider movies as important as food, are thrilled with the cream of America's best and latest motion pictures.

The Ampro Dual Unit here illustrated known as the "J Kit" is standard equipment for Special Service Units. In addition, thousands of Ampro 16 mm. projectors are being used in training men in the Army, Navy and Air Corps. Ampro facilities are engaged 100% in producing projectors and other precision equipment for the U. S. War effort. Ampro engineering is going ahead at full speed. To keep in touch with the latest developments in 16 mm. projection, make certain your name is on the Ampro mailing list. Write today!



THE AMPRO CORPORATION
2839 N. Western Avenue, Chicago, Ill.

AMPRO
PRECISION CINE EQUIPMENT

Kaiser's Children

Shipbuilder opens first of new nurseries to keep working mothers on the job, but red tape snarls other projects.

While child-care programs in other war-industry centers were being strangled in government red tape, Henry J. Kaiser last week flung open the first of a group of day nurseries to accommodate the children of working mothers employed in his West Coast shipyards.

- **Pay 50¢ a Day**—The first nursery, at Richmond, Calif., affords facilities for the care of 180 children. Three more to be built soon at Portland, Ore., will accommodate 500 each. Mothers pay 50¢ a day for all service, including meals. The Richmond nursery operates ten hours a day, and mothers are urged to work daytime shifts so that they may avail themselves of it.

The U. S. Maritime Commission supplied the money (\$750,000) for the nursery but gave Kaiser a free hand in the design and construction. The structure was designed by Dr. Catherine Landreth, director of the Institute of Child Welfare at the University of California, and is staffed by 40 of her advanced students.

- **Red Tape Bypassed**—Maritime Commission financing made it possible for Kaiser to bypass the cumbersome machinery which has discouraged others from prosecuting child-care programs. Here are the channels through which a project normally must pass:

Application for federal funds must be initiated by some local sponsoring agency

and filed with the regional director of the Federal Works Agency.

It then must be cleared through a field office of the Office of Education in the Federal Security Agency.

From the field office of the Office of Education, it must be sent to FWA headquarters in Washington.

FWA sends it to the Office of Defense Health and Welfare Services in FSA.

The health and welfare office sends it to the Program and Project Review Board in FWA.

After it has cleared these hurdles, the application is ready for the more or less perfunctory approval of the President.

- **Sponsors Think Twice**—Small wonder that community agencies, although wishing to release mothers for war work and at the same time to keep their children off the streets, think twice before they ask FWA for a slice of its Lanham Act money for child care (BW-Mar. 20 '43, p32).

Detroit braved the red tape and got \$265,831 which, with \$218,458 subscribed by local agencies, will finance 75 nurseries and day schools, the first of which was opened Apr. 5. That amount will provide care for 2,125 children, but facilities are needed for 50,000 if maximum use is to be made of the city's womanpower potential.

- **Black Market Nurseries**—Factory nurseries in Detroit have failed to progress beyond the talk stage. Black market nurseries at \$10 a week are too expensive for the mother whose income may not be much more than twice that. For \$2.50 a week, the FWA nurseries will keep a child from 4 p.m. to 7 p.m., feed him, and supervise his play.

FWA recently approved two around-the-clock nursery projects, one at Inglewood, Calif., the other at Wichita, Kan., and authorized \$77,368 for ten nursery



With the last word in modern day nurseries, Henry J. Kaiser now minds the children of women workers who help build his ships at Richmond,

Calif. Aimed at cutting absenteeism among mothers, the two-story child center is equipped with a dormitory, infirmary, kitchen, and play rooms.



A Letter
from
Guadalcanal...

In a recent letter from a lad at Guadalcanal to his former employer was voiced the greatest challenge of our time.

"What," he said, "am I, and all these fellows with me, going to do when this thing is over?" Is peace to bring with it the deadly spiral: men laid off and demobilized, hence less purchasing power, hence more plants closed down, hence more men laid off, hence — ?

We believe we've seen the answer right on the production lines and right in the post-war plans of American industry.

We've seen and consulted with hundreds of research men uncovering new secrets in metallurgy, synthetics, plastics, aeronautics — finding

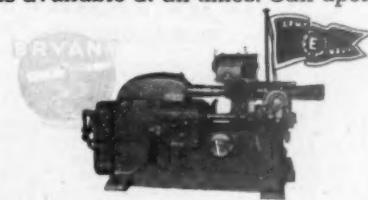
new techniques and economies — planning new and wonderful products that will cushion the post-war interim to the greatest production age in history.

As internal grinding specialists, we at Bryant have already helped to solve production problems involving the machining of many new light metals, alloys, and synthetic materials including glass, plastics, hard rubber, wood, graphite, and even machine parts made of paper.

We've developed many new techniques in tooling, and we believe that this knowledge is important to your future. For that reason, our Consulting Service is available at all times. Call upon us now!

Bryant Chucking Grinder Company

Springfield, Vermont, U. S. A.



New Hampshire

THE THIRD MOST INDUSTRIALIZED
STATE IN THE UNION

has the space and
the manpower

LOCATE YOUR INDUSTRY HERE!

- 1—Quality market
- 2—Near mass markets
- 3—Fast transportation
- 4—Diversified industries
- 5—Industry minded banks
- 6—Intelligent labor

TAKE ADVANTAGE OF—

- 7—Adequate power
- 8—Reasonable taxes; low debt
- 9—Able research agencies
- 10—Progressive managements
- 11—Many natural resources
- 12—Excellent living conditions

Brokers' cooperation invited

NEW HAMPSHIRE STATE PLANNING AND DEVELOPMENT COMMISSION

Edward Ellingwood, Industrial Agent
201 CAPITOL ST., CONCORD, N. H.



LUCKY YOU, when you live or travel in the area where you can enjoy Hyde Park — the beer that's extra-aged by Father Time for mellow, appetizing true lager flavor. Hyde Park is seldom equalled, never excelled!

FATHER TIME

HYDE PARK

TRUE LAGER

—the BEER that's
EXTRA-AGED

Copyright, 1943, Hyde Park Breweries Association, Inc.
St. Louis, Missouri



Underslung wash basins (above) are typical of the new Kaiser day nursery. The University of California's Child Welfare Institute supervises the children's recreation and safety, succeeds in combining both in fire drills on the escape chute (right).

schools and ten child centers in the District of Columbia. Federal funds usually defray about half the expense; the rest is paid in fees by parents using the service and by local contributions.

• **Saturday Club**—School and playground authorities at Burbank, Calif., collaborated in organizing a Saturday Club to relieve an acute absenteeism problem among mothers working at the Lockheed and Vega aircraft plants. Civilian defense volunteers staff the club and keep the children amused on Saturdays; other days the children are at school.

The Southern California Aircraft Manufacturers Council has discussed a system of nurseries, but nothing has yet been done.

• **WPA Had 1,500**—In contrast with estimates that facilities for 2,000,000 to 3,000,000 children may be needed eventually, FWA reports that as of Apr. 10, there were 1,071 nurseries and centers caring for 51,536 children. Even in peacetime, WPB had 1,500 nursery schools operating free of charge.

DRUGSTORE LAMENT

Whether or not landings of tuna in the season's biggest run, which starts in May and continues through September, are up 40% over last year as they were in the smaller run of the first quarter, the catch isn't going to restore the tuna fish sandwich to drugstore counters. This year the military forces will take 60% of the tuna pack; last year they took none. Landings for the first three



months of the year were 8,372,837 lb. against 5,962,135 lb. last year.

The tuna fleet is reduced 40% because of ships taken over by the armed services, but higher prices for the fish will stimulate bigger catches by the remainder. Albacore, caught off the Northwest coast, is listed at \$325 a ton; yellow fin, mainstay of the clipper fleet, is \$200 a ton; blue fin brings \$190; striped tuna \$180. Bonito and yellowtail, tuna-like fishes, bring \$155 and \$145 respectively. OPA has lowered cannery maximum prices \$1 to \$3 a case, cutting retail prices 1¢ to 3¢ a half-pound can.

Because most tuna fishing is done in the waters off Mexico and Central and South America, fishing vessels must be able to go anywhere on the high seas, must also have elaborate refrigeration machinery.

experience built by 74 years of pneumatic engineering now available to you, too!



Perhaps you've never thought of it that way . . . but every time you ride a train you get a practical demonstration of the flexibility, simplicity and effectiveness of pneumatic remote controls.

Each demonstration certifies the three-quarters of a century of Westinghouse Air Brake Company experience behind these controls . . . experience that is now available to you.

Stimulated by the needs of war, W·A·B Remote Control Systems are already at work in new and broader fields. They are helping to improve output and better performance in Marine, Earth Moving, Mining, Petroleum, Lifting, Conveying, and Factory equipment.

One tremendously important current application, for example, is in ships. The W·A·B Control Systems concentrate command of all engine maneuvering in a few small levers grouped in control stations located on the bridge, in the engine room . . . or both. Control of the ship is almost as centralized and simplified as the control of your car.

Speeds of individual engines can be varied and synchronized to hair-line limits; the smallest movement of the graduating lever is reflected by a proportionate movement of the engine-room controls, with no lost motion, back-lash, or play. In any cycle

of operations such as speed reduction, declutching, braking, reversing, clutching and pick-up, timing is at the will of the operator — but sequence cannot be varied through ignorance or carelessness. Safety and limiting devices are directly and positively interlocked, without the need for complicated auxiliary mechanisms.

Examples like this are not intended to define your specific use of W·A·B Remote Control Systems . . . but merely to suggest their almost limitless possibilities. In many cases, control problems have been solved by the use of standard "off the shelf" W·A·B devices.

You and your engineers can tell, better than anyone else, where W·A·B Remote Control Systems — Pneumatic, Pneumatic-Electric, or Pneumatic-Hydraulic — would fit into your plant or your product. Our representatives will be glad to focus W·A·B experience on the development of a system engineered to your exact requirements. Phone, wire or write.

Westinghouse Air Brake Company



INDUSTRIAL DIVISION

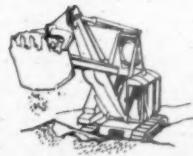
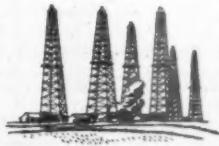
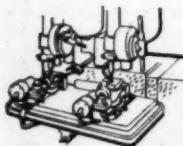
General Offices: Wilmerding, Pa.

74 Years of Pneumatic Control Experience

W·A·B

PNEUMATIC
PNEUMATIC-ELECTRIC
PNEUMATIC-HYDRAULIC

Remote control systems

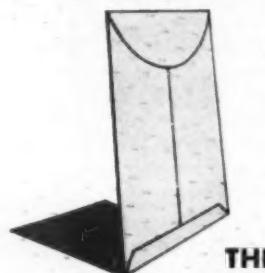




WORK GOES FASTER . . .



**WHEN EMPLOYEES KNOW
THEY ARE BUILDING THEIR
OWN FUTURE SECURITY**



**"PROTECTED PAY ENVELOPE"
HELPS PROTECT THEM NOW
AND SUPPORT THEM LATER**

FOR DETAILS, WRITE



WAR BUSINESS CHECKLIST

A digest of new federal rules and regulations affecting priorities and allocations, price control, and transportation.

Packaged Drugs

The packaged drug industry has been placed under strict price control in a regulation covering all products, whether sold in hospital and institutional sizes or to retail consumers. Sales by physicians or other authorized practitioners, sales on prescriptions, and sales of botanical drugs are excepted. New and changed proprietary medicines must show the retail ceiling price; "old" packaged drugs continue at the May, 1942, level. (Regulation 392.)

cents maximums set by OPA. Because by far the greater part of all soap sold to the domestic consumer moves through grocery stores, control at the retail level is restricted for the time to such stores; other retail outlets will remain under GMPR. The new ceilings are those that prevailed in January, 1943. These ceilings were chosen to take into account previous voluntary price reductions by soap manufacturers. (Regulation 391.)

Cosmetics

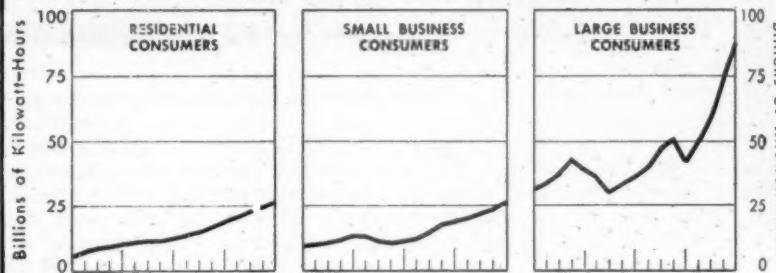
After conferences with cosmetic manufacturers, wholesalers, and retailers (BW-May 1 '43, p77), OPA has brought under control all packaged cosmetics except certain private formula products whose prices are established under Regulation 282. In

Soap

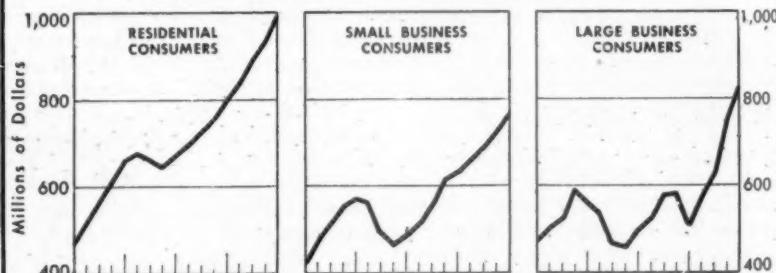
From the manufacturer through retail grocer, cake by cake, box by box, case by case, and brand name by brand name, the soap industry falls under the dollar-and-

WHO USES ELECTRICITY—AND WHAT THEY PAY

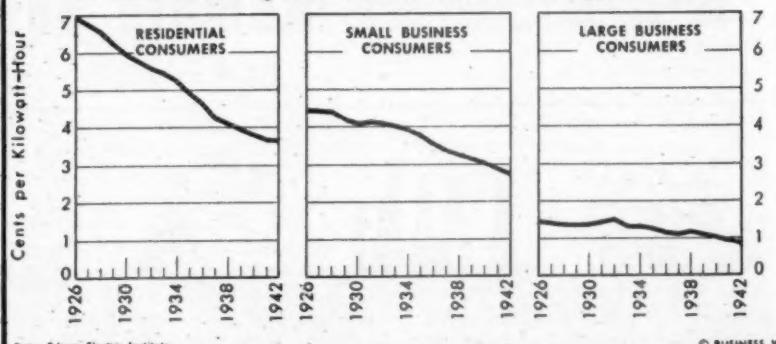
(1) In 1942, sales again increased most among large business users—



(2) But residential sales still accounted for more revenue—



(3) Because declining rates remained lowest for the biggest customers.





Trucks That Rain Death Upward

THE INTERNATIONAL HALF-TRACK is a truck that carries its own pavement. It can speed over bog, sand, mud and mountain . . . carrying armed-to-the-teeth personnel to seize and hold a position, or toting fast anti-aircraft firepower that rains death upward.

The International Half-Track is proving on the world's battlefronts that it can take it, as well as dish it out. It should. It's a brother under the armor to the International Truck that was the *largest selling heavy-duty truck* on the market when civilian trucks were still being made.

When the story of this war is written, the nation's trucks will contribute one of the most glorious chapters. A vital part of this war is being waged on the highways of America, where trucks defy time, distance, and weather. They haul materials to keep the wheels of America's war production turning, and food supplies to

feed America's great army of industry.

Trucks must work harder and longer, to the last possible mile, because there aren't any new trucks to take their places. That means that every truck on the road today must be babied and serviced to give better and longer wear than was ever expected of trucks before.

And International civilian truck service—the *largest company-owned truck service organization in the world*—is now a wartime truck service. More alert and more efficient than ever to keep your trucks on their jobs. Whether they're International Trucks or any other make, bring them to an International Branch or Dealer. You'll find International service close at hand—pledged to keep your trucks rolling—pledged to Victory!

INTERNATIONAL HARVESTER COMPANY
180 North Michigan Avenue Chicago, Illinois



MAJOR WAR PRODUCTS BUILT BY INTERNATIONAL HARVESTER

Half-Track Military Vehicles Torpedoes
Artillery Prime Movers
Automatic Airplane Cannon
Oerlikon Gun Mounts Military Trucks
Military Tractors
Steel Products for Military Use
Aerodrogue Control Trucks
Armored Scout Car Hulls
High Speed 155 mm. Gun Carriages
Gun Loaders
Airplane Engine Cowling Assemblies
Tank Transmissions
Blood Bank Refrigerators
Shells Gun Carriages
Adapter Boosters Trackers
Marine Corps Invasion Ice Chests



Four Harvester Plants have been awarded
the Army-Navy "E" for Excellence.



* INTERNATIONAL TRUCKS *



THEIR *Under-Sea Safety* guarded by GREER PRECISION ENGINEERING

MEN WITH the daring and resource to choose to serve on subs deserve the best in safety devices. In the U. S. Navy, they get that. The rigid standards of Greer engineering now go into producing such vital equipment.

In designing and constructing confectionery and bakery machines, Greer has always been a forward thinker. Our engineering has been in many respects revolutionary. Today, in producing precision war equipment, Greer is experiencing the most exacting schooling in how dependable machinery must be built.

Though we are now in production for the Navy, we have by no means forgotten our many friends who are using Greer Confectionery and Bakery Machines. Your future achievements, as well as any present problems of maintenance, concern us keenly. If you are blueprinting your post-war production now, Greer engineers are equipped to give valuable help in many types of operation—particularly where cooling, drying, and conveying are required. Call upon us.—J. W. Greer Co., 119 Windsor St., Cambridge, Mass.

MAKERS OF FAMOUS



general, the new order maintains existing price levels. Provision is made for altering a product's formula or container without changing the price. Decrease in quantity of product, up to 3%, is permitted without a price decrease, is caused by circumstances beyond the manufacturer's control; for the five-and-ten-cent trade, this tolerance is increased to 20%. (Regulation 393.)

Glass Containers

A reduction of from 5% to 7.5% in the price of wide-mouth glass containers sold to commercial packers has been effected by an OPA action that rolled back the dollar-and-cents ceilings for all types of these containers from the levels prevailing in October, 1941, to the July 1, 1942, levels. (Regulation 382.)

Canned and Frozen Foods

Replacing the maximum markups which had been scheduled to take effect May 1, new markup prices have been established by OPA for retailers selling canned and quick-frozen fruits, and canned and quick-frozen vegetables, and for wholesalers selling canned fruits and vegetables and baby foods. This action restores the lower markups on canned vegetables which have been in effect for several months and reduces markups announced for canned and quick-frozen fruits. The new schedule does not apply to canned citrus fruits and juices. (Amendment 1 to Regulation 237, wholesale; Amendment 1 to Regulation 238, retail.)

Sugar

The curing of mutton has been added to the list of industrial food processes for which sugar allowances will be granted to registered industrial users of sugar. Packers and other industrial mutton-curers are allowed one pound of sugar for each 100 lb. of unprocessed mutton. (Order 31, Amendment 60.)

Cheese

To provide more outlets for milk in the New York milkshed, the cheese allowance to manufacturers in this area has been adjusted, in an order that increases the allowance by $\frac{1}{4}$ ¢ and decreases from 9.45 lb. to 9 lb. per cwt. the yield on which the price of milk used for cheese is based. The current cheese subsidy of 3 $\frac{1}{2}$ ¢ per lb. must be included in the farmer's return. (Federal Milk Order, as amended.)

Gasoline

To halt the delays in planting the 1943 crop caused by idle tractors, Petroleum Administrator for War Harold L. Ickes has issued an order giving farmers in the eastern states a preference rating equivalent to that of the Army or of the Navy in the purchase of gasoline and fuel oil for their tractors, according to a statement issued by the office of War Food Administration.

As a further help to the farmer, gasoline suppliers are ordered to give preference to any person using gasoline for nonhighway farm purposes. This order also removes the ten-day inventory restriction on fuel oil to permit the building up of stocks

ultimate consumer storage in preparation for next winter. (Petroleum Administrative Order 1, as amended.)

Knit Goods

Knit underwear, sweat shirts, and T shirts have been brought under an amended order of WPB that limits their manufacture of certain fabrics and models. Restricted production of women's and misses' rayon knit union suits is allowed by this amendment, however, and more sizes of children's underwear are permitted. (Order 247, as amended.)

Used Sewing Machines

Because of their increasing importance, used industrial sewing machines have been brought under dollar-and-cents ceilings by order of OPA. Maximum rental rates, for both new and used machines, are established. Generally, the maximum prices for rebuilt and guaranteed machines are 85% of the base price (manufacturer's Oct. 1, 1941, price for a new machine); for machines sold "as is," the ceiling price is 55% of the base price. (Regulation 375.)

Motion Picture Sets

WPB has removed the \$5,000 ceilings on the cost of materials used in the construction of motion picture sets (BW—Jul. 25 '42, p38) and has established a new procedure, effective July 1, whereby motion picture producers may file applications for materials on a calendar-quarter basis. (Order L-41.)

Cordage

With the purpose of encouraging the use of sisal as a substitute for hemp, manila, and agave fibers in the production of cordage, inventory restrictions limiting stocks of sisal to a one- to four-month supply have been removed by WPB. (Order L-138, as amended.)

Steel

Tungsten type high-speed steels may be produced and purchased in amounts up to 35% of the production of total high-speed steel, instead of the 25% of total production previously allowed. By thus permitting the use of more tungsten, a substantial saving in molybdenum will be effected. (Order M-21-h, as amended.)

Steel Pipe Fittings

Production of steel pipe fittings has been defrilled by WPB in an order reducing the number of types of fittings from 38,784 to 3,615. This action supplements Order L-288, under which iron and brass pipe fittings were simplified. (Order L-278.)

Petroleum

To provide the petroleum industry with an improved method of securing new materials for the discovery, development, operation, and maintenance of oil and gas fields, an order has been issued simplifying and centralizing all controlled materials as they affect the industry. Large U. S. producers must file application for controlled materials



The engineering skill, the ultra-exacting standards of accuracy, the modern manufacturing methods, responsible for Monroe supremacy for a quarter-century... are being used to speed Victory.

Army and Navy engineers have selected our plant for special tasks that require just such a background of precision designing and N^{th} degree accuracy in making fine equipment. For the duration Monroe will concentrate on production for war; when peace comes, Monroe will be better equipped than ever to hold its position of leadership.

Because war industries must have an ever-growing volume of accurate figures and records to speed production, certain models of Monroe machines are available under WPB regulations.

Let a Monroe expert analyze your figure work and suggest time-saving short cuts; keep your Monroes operating efficiently through regular inspections by trained specialists under our Guaranteed Maintenance service. Call the Monroe branch nearest to you, or write Monroe Calculating Machine Company, Inc., Orange, New Jersey.

MONROE

Machines for Calculating, Adding and Accounting

**THE BLUE NETWORK
SALUTES THE WOMEN'S
NATIONAL RADIO COMMITTEE
AND THE WINNERS
OF IT'S ANNUAL AWARDS**

In the decade that it has been in existence, The Women's National Radio Committee (representing 25 national organizations with a membership of over 17,000,000 women) has made an important contribution to radio broadcasting.

Through its Annual Awards—the Committee has been an influence in improving the standards of entertainment on the air. This year, the awards are largely in recognition of the effectiveness with which the winners have served the nation's war effort.

The Blue Network is glad to pay public tribute to The Women's National Radio Committee, to the National Broadcasting Company and the Columbia Broadcasting System; to all the sponsors whose programs won awards; and to all the writers, actors, singers, musicians and technicians on the programs.

HERE IS THE FULL LIST OF WINNERS:

Music: Metropolitan Opera (BLUE)
Sponsor: The Texas Company

Drama: Cavaleade of America (NBC)
Sponsor: DuPont Company

Young People's Programs: Let's Pretend (CBS)
Sustaining

News Analyst: Raymond Gram Swing (BLUE)
Sponsor: Socony-Vacuum Company

Forum: Town Meeting of The Air (BLUE)
Sustaining

We of The BLUE would be less than human if we were not both glad and proud that three out of the five winners are Blue Network programs... In addition to the winners, we salute the following programs which won Honorable Mention:

Music: New York Philharmonic (CBS) and
The Telephone Hour (NBC)

Drama: Lux Radio Theatre (CBS); This is
Our Enemy (MBS); One Man's Family (NBC)

News: H. V. Kaltenborn (NBC) and
Gabriel Heatter (MBS)

Forum: Chicago Round Table (NBC);
Quiz Kids (BLUE);
American Forum of The Air (MBS)

Young People's Program: Rainbow House
(MBS) and The Aldrich Family (NBC)

And these citations:
to station WQXR, New York, for "Music
programs of unusual quality and interest"
and to station WMCA, New York, for "the
program furthering democratic ideals and
public service"

The Blue Network

A SERVICE OF RADIO CORPORATION OF AMERICA

at least four months prior to the calendar quarter in which the material is to be delivered; Canadian operators and small U. S. producers (those who drilled less than 40,000 ft. during 1942) must file application a month before the material is to be delivered. (Order P-93-B, as amended.)

Photographic Film

To correct inequalities in the distribution of photographic film, WPB has limited orders of commercial, institutional, and other users of this product—including newspapers and magazines—while protecting users holding priority ratings. Ratings, to be valid, must be AA-5 or higher. (Order L-233, as amended.)

Feathers

A further restriction on goose and duck feathers limits their use to the production of sleeping bags for the armed forces, instead of to general defense purposes (BW—May 8 '43, p26). Deliveries of raw feathers to processors, as well as distribution of processed feathers to sleeping-bag manufacturers, are subject to specific authorization from WPB. (Order M-102, as amended.)

An OPA ruling, announced by telegrams to all processors of chicken feathers, has approved a price ceiling of 33¢ per lb. for a new grade of chicken feathers in another attempt to facilitate the procurement of feathers for sleeping bags for the armed forces. (Regulation 318, as amended.)

Refrigerators

Ceiling prices for commercial refrigerators and commercial refrigerating apparatus have been reduced to take into account the repeal on Nov. 1, 1942, of the federal excise tax which was formerly paid on such equipment. The amendment provides that present maximum prices must be reduced by the amount of the tax when the tax was shown as a separate item on the manufacturer's invoice, or by 1/11 of the established ceiling when the tax was not so shown. (Supplementary Regulation 14, Amendment 169; Regulation 188, Order A-1, Amendment 4.)

Information

A new Directory of Commodities and Services has been published by OPA to help interested persons contact the best source of information on any problem. The guide lists commodities and services alphabetically and shows the OPA unit that handles each one. It may be obtained from the Superintendent of Documents for 30¢.

The Special Projects Salvage Branch of the Salvage Division of WPB is publishing a bimonthly leaflet entitled "Available Used Material and Equipment Bulletin" to assist in determining whether to treat a piece of borderline material as scrap to be converted for war production or to use it in its present form.

Other Price Actions

A manufacturer of 5¢ candy bars and confections may increase his price to vending machine owners, operators, or lessors by not more than 10% of his current



Buffalo Arms Corp.
Buffalo, N. Y.
Arthur A. Crafts Co.
Boston, Mass.
E. I. du Pont de Nemours & Co., Inc.
Moosic, Pa.
General Motors Corp.
(Three divisions)
Alfred Hofmann & Co.
West New York, N. J.
The Mason Can Co.
East Providence, R. I.
The Perry-Fay Co.
Elyria, Ohio
Skilsaw, Inc.
Chicago, Ill.
The United States Metals Refinery Co.
Carteret, N. J.
Worcester Moulded Plastics Co.
Worcester, Mass.

(Names of winners of the Army-Navy award for excellence in production announced prior to this new list will be found in previous issues of Business Week.)

ceiling, provided the new price is not in excess of \$2.62 per 100 items (Amendment 171 to Supplementary Regulation 14)... Specific ceiling prices for the sale of unspecified horse meat, used chiefly for animal consumption in a midwestern base zone, are rolled back 22% to 35% by Amendment 2 to Regulation 367. . . . Maximum dollars-and-cents prices at the processors' level for roasted chicory in packages of one pound or less have been set by Supplementary Regulation 14, as amended. . . . Amendment 1 to Regulation 227 provides a markup for primary distributors of dried fruits. . . Salt codfish has been put under specific cents-per-pound maximum prices by Regulation 384.

Other Priority Actions

Order L-1-g, stopping production of automotive truck trailers, has been amended to permit the building of "reassembled trailers" from miscellaneous, used, and repair parts, provided not more than 30% of new iron and steel is used. . . . Further savings in critical materials have been effected by restrictions on the use of such materials in plumbing fixtures and trim, according to Schedule V of Order L-42 as amended. . . . Wallpaper patterns have been limited to those produced in 1942-1943, and base paper consumption has been restricted to 60% of tonnage used in 1941-1942 (Order L-177). . . . Dealers who require buyers of new automobiles to turn in used cars as part payment or to purchase unwanted accessories are violating OPA revised Price Schedule 85. . . . Manufacturers of uniforms for Waac officers have been assigned an A-1-i rating for procurement of fabrics. . . . Rations of gasoline can be granted for fishing purposes in eastern waters only if the applicant is engaged in commercial fishing.



Basis For Postwar Planning:
**OUR STAKE IN THE
PRE-PEACE CONFERENCES**

Hot Springs, Va., saw the first United Nations pre-peace conference — on food.

Huddled in darkened homes from Dunkerque to Marseille one night a few weeks ago, listening surreptitiously to the regular evening radio program of the BBC (British Broadcasting Corp.), thousands of unhappy citizens of Occupied France suddenly jerked to attention. Coming distinctly over the air was a familiar voice from London in impeccable French:

"Pay close attention to the BBC and Radio France (Algiers), which will give you the signal of our approach. More than ever we say to you tonight 'A bientôt' ['We'll be seeing you soon']."

To the sad and hungry people of Nazi-controlled Europe the news was electrifying. It is their promise of freedom—within months, possibly weeks—after three bitter years under the heel of the Nazis.

But to responsible citizens of Britain and the United States, who read the news over their breakfast coffee the following morning, it is sobering—almost frightening.

It means that—after months of talking about postwar plans—the time has come when the planners must be prepared to act. With this warning of invasion, the United Nations conferences—on food, international trade, and monetary problems—scheduled for 1943 suddenly become matters of immediate urgency.

It is too early to know all of the agenda that will be covered at each of the conferences, or even all of the subjects on which discussions will be held. As the conferences come along, *Business Week* will report each of them in detail.

In this special advance report—one of a series on postwar prospects—*Business Week* aims to set forth the facts, figures, problems, and proposals that establish a basis for postwar planning of international economic relationships. Only when it has a full understanding of these can management contribute to that coming world readjustment which may involve so many readjustments in business policy and practice. The opening of the Hot Springs, Va., food conference in the current week signals the importance and the timeliness of this job.

This is one of a series of reports to executives designed to provide a basis for postwar planning in various fields of business interest.

OUR STAKE IN THE PRE-PEACE CONFERENCES

A few weeks ago agents of the London-domiciled Belgian government-in-exile placed an order in Canada for 200,000 tons of wheat, frankly admitting that they were preparing to feed their people as soon as United Nations forces reoccupy their homeland (BW—Apr. '43, p88). Since Belgium, even in normal times, depends almost entirely on imported cereals, these agents are likely to continue their purchases in world markets until they hold the million or more tons their country customarily needs for a year's consumption.

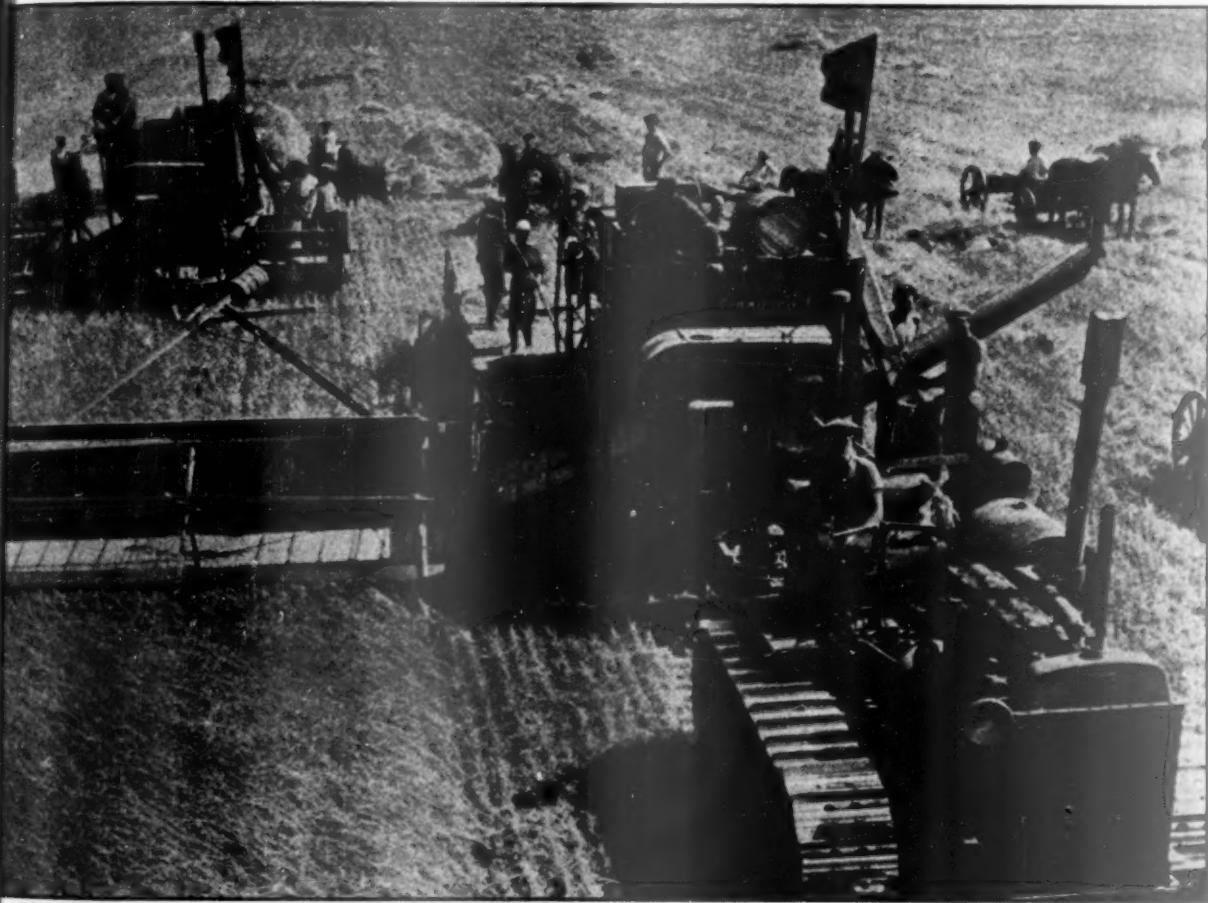
Laudable as the move would seem to be, it has created consternation in a dozen capitals, but particularly in Washington where there is a strong feeling of responsibility for fair and workable postwar patterns.

Is Belgium, because it is one of the nations fortunate enough to have had a supply of gold stored outside its borders, to fare better when the day of liberation comes than some other less wealthy Hitler prisoner that may cooperate just as courageously with the invading armies?

Or, if Belgium's aggressive attack on the immediate relief problem is to become an accepted model, who is going to control the competitive rush for ships to deliver the wheat—and other supplies—when the time comes? Can the business of feeding and rehabilitating the 42,000,000 Frenchmen, the 8,000,000 Belgians, and the equal number of inhabitants of the Netherlands be left to the individual efforts of competing exile agencies in London? And, if so, who is going to look out for the Danes, the Finns, and the Albanians who have no governments-in-exile?

Here is one kind of practical question which confronts this year's series of international postwar planning conferences that started with the Hot Springs sessions on food. And, before the meetings are over, they will encounter many such questions in which business has a deep concern and on which thoughtful business men are now seeking perspective.

The time is gone when postwar planning can be



How to help feed Britain and Russia during the battle for Europe and to provide relief supplies for each reoccupied territory as United Nations armies force their way toward Berlin is only the immediate problem con-

fronting the food conference which opened at Hot Springs this week. Representatives from 40 countries will propose long-range projects for the mechanization of agriculture in such backward areas as the Balkans and

China, modeling their plans for these projects as much on the Soviet Union's "industrialized farming" (above) as on the extensive experience of such old-timers as the United States, Canada, and Argentina.

viewed as something purely academic, something for the distant future. United Nations victories at Stalingrad and in Tunisia, the steady aerial pounding of German and Italian industrial centers, and, above all, the mounting equipment superiority of the anti-Axis powers—dramatically emphasized by the Duisburg raids—virtually assure the overthrow of the European partners in the Axis within the next twelve months.

First concrete problems were posed as long as six months ago when the spectacularly successful Allied landings in Africa caught both London and Washington without an adequate plan for the civil and economic administration of the country. De Gaulle, Nogués, Peyrouton, and even Giraud—none of them to this day can adequately carry out the civil administration job that Gen. Eisenhower should reasonably be able to assign them. And the monetary flurry which still plagues United Nations authorities in North Africa is the direct result of the first ill-advised moves to stabilize the franc on an unsound basis (BW—Mar. 13'43, p48).

Exploratory Conferences

There can no longer be any secret about the fact that very few concrete plans have been drawn up for reorganizing the world after the war. Both Washington and London know that most of the conferences which will be held this year can do little more than explore the tasks that must be undertaken and draw up some minimum agenda which the representatives of the 40 or more United Nations can consider with their home governments.

From contacts with government officials in London and Washington, however, it is increasingly clear that the dream of responsible government leaders is to set up a centralized United Nations planning agency. During the first relief and rehabilitation period, Britain and the United States would have to provide the nucleus for such an organization, for only these two countries are able to provide immediately significant quantities of the food, clothing, medicine, and manufactured supplies required. But no plans will be drawn up—even at these first meetings—without including the Soviet Union and all of the other nations that want to participate.

It is natural that the first conference to be called should deal with food and that the world should be watching its accomplishments as a signal of what can be expected when other subjects like tariffs, international crop control plans, air transport and shipping, monetary problems, and immigration come up for consideration.

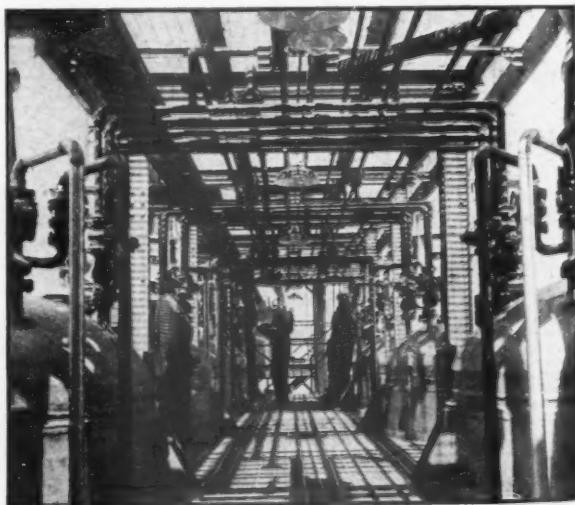
What is not generally recognized is that the Hot Springs conference aims to deal with much more than the mere question of relief and immediate supplies of food. There is no doubt that important groups in both London and Washington intend to use this conference as a sounding board for plans for a vast, coordinated, international agricultural program, and that their success or failure will be taken as a measure of what can be expected from the other international conferences which are to follow.

These groups want to create great international commodity pools in such basic food products as wheat, corn, cotton, rice, and vegetable oils. They would like to operate these pools as a sort of "United Nations Commodity Credit Corp." with the function of (1) stabilizing markets and prices for the most economic producers, and (2) assuring basic supplies at reasonable prices to both big and little consumers.

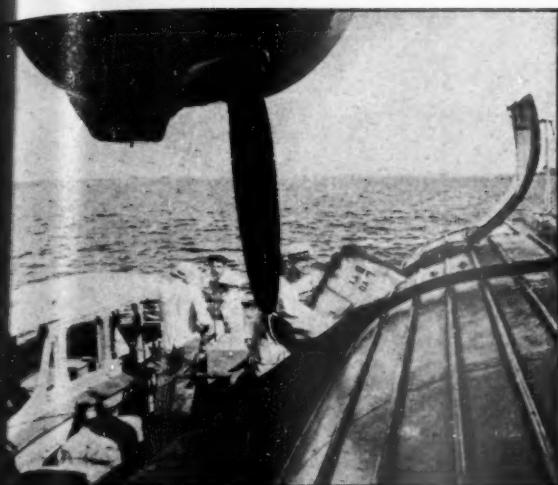
These same planners—and they have powerful backing in both Washington and London and constant encouragement from Moscow and Chungking—go much further. They contemplate a kind of international "Reconstruction Finance Corp." to help finance such internationally approved projects as hydroelectric developments in China, mines in Brazil and Spain, basic industries in Puerto Rico and Java, transportation facilities in Africa and Asia, and modern agriculture in the Balkans and Central America.

In agriculture, they would do such things as discourage the uneconomic growing of wheat in Italy where Mussolini forced farmers to plant grain as a reserve for war; in its place, they would promote the growing of fruit for export and the development of a home livestock industry to meet the demands of a market notably short of milk and dairy products. They would encourage more small, densely populated countries to emulate the example of Denmark which, long before the war, had developed on imported fodder the highest unit capacity production of dairy products and pork of any nation in the world.

Over a period of years and after a careful training program, the planners would attempt to mechanize the agriculture of backward countries and draw their surplus labor into industries suited to each—all in order to rationalize and diversify production according to



United States synthetic rubber plants like this one—with a capacity to produce more than 1,000,000 tons a year—create a major postwar problem for the economic planners. When the war is over can synthetic compete with the natural rubber of Malaya? And if it can, what is the United States going to do about the rubber it has induced Brazil to cultivate to meet the wartime shortage?



The wartime drive for rubber is changing the face and the future of the Amazon Valley. Rubber Reserve Co. organized a huge project for gathering natural rubber in the tropical wilds of South America. Brazil cooperated by urging more than 50,000 potential tappers to migrate to the richest rubber-bearing regions. Here, less than a year after the scheme was launched, is a Rubber Reserve launch more than 1,000 miles up the Amazon transferring baled rubber to a Pan American flying boat for delivery to the United States. Brazilians believe that, whether or not the rubber boom lasts, the Amazon Valley will become the Americas' great tropical products reservoir.

bound economics, and to produce higher individual incomes. This is as desperately needed in Mexico as Bulgaria, and as eagerly sought by China as by Puerto Rico.

But the experts who began their deliberations in Hot Springs this week know that there are many questions to be answered before these dreams can even be set down on paper.

Who, for instance, is going to finance the reorganization of Balkan agriculture? Neither Bulgaria nor Greece will, for a long time, be in any shape to buy farm machinery abroad or to undertake the government marketing of crops on the necessary scale. Mexico is in the same predicament, though some progress has been made in the last five years and her new economic pact with the United States suggests how the bigger international job will have to be undertaken (BW—May 8 '43, p36).

Who is going to assume the responsibility for providing the technical experts which all backward countries will need at the start, or for financing the education of selected young farmers from these countries who will ultimately be made responsible for carrying out the farm programs now envisioned?

Such questions on agricultural organization which must be discussed at the Hot Springs food conference suggest the scope of some of the later meetings which will deal with tariffs, international finance, and international public works.

For example, what about the schemes for vast inter-

national projects of the type and scale of our own Tennessee Valley Authority development—for which the small backward countries have neither the engineering skill nor the capital?

Russia has already hired foreign engineers to design a TVA scheme for the Volga and is prepared to carry it out without foreign aid, except for priorities on certain equipment which the Russians must import. On the other hand, Hungary, Rumania, Yugoslavia, and Bulgaria will probably need some neutral administrative authority, as well as capital and engineering guidance, if the vast Danube power project now envisioned is ever to be carried out.

Brazil has already queried United States engineers on the prospect of developing such a project along the Sao Francisco river. Venezuela—if it could make a start on a big-scale Orinoco power development—might be encouraged to seek the immigrants whom the country needs if it is ever to be developed to its full capacity, and whom Europe can so easily spare.

Months ago it was suggested that the United States sell abroad some of the used machinery from its consumer goods factories that have been closed by wartime shortages in raw materials. At that time, officials estimated that \$2,000,000,000 worth of such machinery might ultimately be disposed of in this way. But, with the shortage of shipping space and the reluctance of some manufacturers to get rid of old equipment—despite the threat that it will be completely obsolete after the war—only a small portion of this potential transfer has taken place.

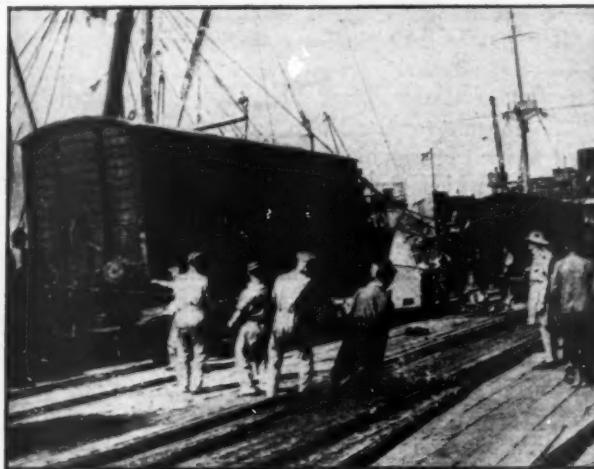
Will the scheme be revived now at one of the international conferences and extended to other big manufacturing countries? Certainly there are many small countries that would be glad to buy secondhand machinery on which they can train their first skilled workers and start the small-scale industries which must accompany agricultural reform. Venezuela, for example, has proved that a profitable small tire business can be built with used equipment from the United States and a handful of skilled technical advisers.

New Foreign Trade Patterns

After watching the violent ebb and flow of Washington's official feeling about so simple a thing as the Reciprocal Trade Agreements Act, there should be little surprise that most of the rest of the world is still skeptical that the United States will sanction any very startling postwar economic innovations. And yet, bold new foreign trade patterns have developed during the war and some of them will survive.

What, for instance, is going to be done with the awkward Anglo-American issue of whether our synthetic rubber industry is to be kept for postwar competition with British interests in natural rubber and with our own Washington-encouraged hemisphere planting?

At the moment, British opinion seems more or less reconciled to continued United States reliance on synthetic, but the possibilities and the problems of finding new outlets for the vast production of southeastern Asia will get a full airing. This affects not only the



Russia's lifeline across Iran today may become a permanent trade route of tomorrow. Thousands of U. S.-made trucks now shuttle between Persian Gulf ports and supply bases on the Soviet border (right), while dozens of

modern locomotives and hundreds of new freight cars (left) are proving that the Transiranian Railroad, when properly managed, is capable of handling a mass of traffic. Russia, with a growing manufacturing zone in Turkestan



(just north of the Iran border) and with an eye on populous markets in the Indian Ocean, may help Iran keep these transport routes in good shape by guaranteeing to deliver minimum loads over them each year.

commodity markets and the welfare of Malaya and the Netherlands East Indies but also Britain's ability to accumulate the dollar exchange necessary to support Britain's huge purchases in the United States.

Brazil and most of the other countries in Latin America are waiting anxiously for Washington's decisions on other emergency deals. The United States, for instance, has contracted to take their entire exportable surplus of such strategic materials as tungsten, antimony, tin, manila fiber, and babassu oil. Some of these contracts are for the duration, some are for three years, and a few stretch up to five years. They have spurred the producing countries to boost their output, standardize their products, and put their business on a basis that will make it possible for them to compete in world markets if given as much as 10 or 15 years to organize mass production and systematized marketing.

Lend-lease deliveries from the United States and reverse operations (which are beginning to assume important proportions) are creating a demand for vast international pools of all basic commodities as a safeguard against price racketeering and nationalistic bargaining. When the international trade conference convenes—presumably in June—will the great trading powers agree to the establishment of these pools? Will they act both as buying and selling agencies? How will private business fit into the picture?

The current flurry in Congress over extension of the Reciprocal Trade Agreements Act indicates the kind of hurdles that are ahead. This program was designed by Secretary Hull to show the rest of the world that the United States was willing to make binding agreements to lower or freeze tariffs for a fixed period of time with any country that was willing to bargain along these lines and share any reductions with all other nations.

At home, it has been moderately administered and

has forced a minimum of business adjustment. Abroad, it has stirred fresh hope among nations eager to buy more United States goods if they can find a way to pay for them with some of their own specialties.

Tariffs will be the theme of one of the most important of the world conferences, but one deliberately delayed until after June 12, by which time Congress, through its vote on extension of the reciprocal trade program, will have revealed its temper on this issue.

Few believe that any of the major powers dares tackle postwar trade problems by making a blanket slash of all tariff rates. Instead, they are likely to enlarge some of the special trading arrangements developed during the war to fit their peculiar circumstances, and to work toward a gradual lowering of barriers on a most-favored-nation basis.

Several wartime trading schemes will carry over into the postwar period and inevitably will influence the patterns of international trade. Important leaders in Britain and the United States, for example, believe that the Combined Raw Materials Board should continue to function long after the war, because there will be a shortage of certain supplies which can be handled better by a central control—until world supplies are back to normal—than by leaving the problem to the free play of world trade. And under such an arrangement, Canada and the United States might continue to waive tariffs on the flow of these particular products across their borders, just as they have been doing for the last two years.

A whole new set of emergency trading rules has been created to help manage our wartime business with Latin America. Can these particular controls be continued to the mutual advantage of the United States and its good neighbors?

The 20 republics south of the Rio Grande will have

sumulated nearly \$1,000,000,000 of credits in the United States by the end of this year (BW—Apr. 3 '43, p. 5). The balances are piling up because the United States is buying huge quantities of such strategic supplies as lead, copper, tin, antimony, and rubber, and is able to spare in return the automobiles, telephones, radios, oil-drilling equipment, steel-rolling mills, and machinery that Latin America wants.

When the war ends and normal shipping is resumed, who is going to have first claim to United States products? Will Argentina, despite its stubborn refusal to break with the Axis, be given equal consideration with Brazil, which is in the war and helping to build an inland highway to Africa and Europe along its strategic southern coast?

And if it is decided that the only way to prevent chaos in the postwar rush for supplies is to continue existing foreign trade restrictions, will business demand that a time limit be set on these control schemes?

It must be remembered that the control schemes are not confined to Latin America, where a relatively popular Good Neighbor program makes them more palatable than when extended to other parts of the world where the United States is in a less favorable bargaining position.

British Plan in Mediterranean

Since April, 1941 (when Rommel was a major threat to Egypt and Mussolini boasted to Italians that the Mediterranean would soon be Mare Nostrum), all major supplies for the eastern Mediterranean countries have been handled by the Middle Eastern Supply Center at Cairo.

Created under the pressure of wartime necessity, the center in the past two years has handled practically all of the foreign trade of Syria, Palestine, Arabia, Iraq, Iran, and Egypt, and much of Turkey's trade with countries outside the Mediterranean. At present, it is a joint Anglo-American organization with branch offices at Baghdad, Ankara, Teheran, and Beyrouth.

So far, the organization has insisted on maintaining as much private trade as has been possible in the face of an acute shipping shortage. Top priority goes to such basic commodities as cereals, fertilizers, tea, oil seeds, and quinine, and minimum requirements of these commodities are handled by public agencies. But, beyond these lines, trade is left to private companies with each Middle Eastern government allocating locally the share of available shipping space assigned to it.

Unexpected British reaction to the potentialities of the organization is reflected in a recent issue of *The Economist* (London), which said:

"Even if the work of the MESC were simply confined to this controlling and directing of supplies and transport, the organization that has been built up could with profit be maintained after the war to integrate the economic life of the whole region for later years. If freedom from want becomes the goal of international collaboration, and the lessons of wartime administration are learned, the MESC and its dependent committees fit into the pattern of world-wide economic collabora-

boration foreshadowed by lend-lease, the combined boards, and (the world's) experiments in rationing."

But the foreign trade trend that stirs the most widespread animosity among business leaders is that toward a government monopoly of all foreign business.

Will Foreign Trade Monopolies Last?

Shortly after the outbreak of war, London quietly set up the United Kingdom Commercial Corp. This completely government-controlled agency was created to handle specialized buying under Britain's far-flung program of economic warfare. For instance, it established offices in Portugal and Spain and set out to buy—at any price—the entire output of such strategic items as mercury and tungsten. Washington, after Pearl Harbor, set up a parallel agency—the United States Commercial Corp.—to do the same kind of job.

But recently the UKCC has turned up as a British counterpart of Moscow's Amtorg Trading Corp., which operates as a government foreign trade monopoly. London revealed last month, for instance, that the UKCC had filled more than \$200,000,000 of Russian orders for goods ranging from machine tools to tea, and from industrial diamonds to Ceylon rubber. It is responsible for an elaborate transportation system in Iran to carry Anglo-American aid to Russia from the Persian Gulf to the Caspian Sea. In India, where the corporation has been buying everything from peanuts to gunny sacks, the Secretary of Commerce recently warned the Council of State that the British government "might find it necessary to utilize the UKCC to handle a large share of the country's foreign trade in the years immediately after the war."

Are the UKCC and the USCC agencies that are likely to be perpetuated after the end of the war? If so, will they deal only with Russia, where foreign trade—like all other enterprise—is a government monopoly? Or will they be urged by London and Washington as yardstick organizations to see that private traders operate according to government rules? Or will they, perhaps, be used to develop trade in areas where private business cannot normally afford to operate because of unusual risks?

Monetary Problems Troublesome

Foreign exchange poses another problem. Ever since the financial crash of 1929, it has been as complicated as a Chinese puzzle. Before the war, a few countries had currencies solidly anchored to gold or to gold-standard currencies like the dollar. A few others were a little less securely tied to gold but were so well managed that small business transactions involving limited amounts of foreign exchange were carried on with comparative ease. But in countries like Germany, tremendous and complicated barriers were built up to preserve their limited supplies of foreign exchange.

Serious as these barriers were before the war, they have been extended—even to the United States—since the fighting started. To keep dollars from finding their way into Axis hands, an American is prevented from sending as much as a dollar to a friend even in friendly

England without first securing an export permit. Across North Africa, American troops are carrying special dollar currency which can be spent only in that region. And in Latin America, we find Argentina with a peso that has any one of three different values, depending on the type of goods being exported.

How all these complications are to be ironed out after the war and a free exchange of money resumed is the primary problem that confronts the world's financial experts. London and Washington are already discussing the problem. Lord Keynes has a scheme to set up an international clearing bank with a special currency called bancor. The United States has responded with a somewhat similar international clearing bank project, and an international currency which would be called unitas (BW—Apr. 17'43, p120).

Russia, Britain, Canada, and the United States have a special interest in currencies tied to gold. Britain, through its control of South Africa, has the world's largest gold production, though Russia is a close second. Canada is both a fairly large gold producer and the owner of a substantial supply of monetary gold. The United States normally mines between \$100,000,000 and \$150,000,000 of gold a year, but its big interest in the postwar setup is based on its huge holdings of more than \$22,000,000,000 of stored gold.

But currency problems can't be solved merely by agreeing to tie each country's currency to gold—even if the United States agreed to share its huge hoard with the rest of the world in proportion to each country's share in total foreign trade, or by whatever plan might be devised. What the financial experts must do is find some scheme to give stability to currencies while the trade experts set up a workable international trade interchange program.

Commodity Pools Proposed

One plan proposes international commodity pools to stabilize the monetary units of the countries involved by buying basic commodities at prices that have a fixed relationship to gold. One pool, for example, might buy annually fixed quantities of coffee from each of the main coffee-growing nations. Brazil, Colombia, and the Central American countries would be the main benefactors from this particular pool arrangement. If, at the same time, another international pool controlling cotton, or leather, or dairy products was functioning, it could help to supply the people of these countries with necessary imports at equally stable prices.

Another plan, stimulated by the huge emergency works projects that have been carried out in various parts of the world since the outbreak of the war, calls for the creation of a superinvestment company, in which private and governmental capital might be combined, to finance the development of backward countries.

The Alcan highway in Canada and Alaska is an example of the kind of project that might be sponsored by the superinvestment company, or by a regional division of it (since Canada and the United States are able to provide ample funds for such projects once their importance is pointed out). The plan to develop TVA-

like projects in the Danube Valley, or in Brazil, Africa would probably be directly financed by the agency.

Projects first proved valuable as a part of the effort come into this international investment scheme. For instance, the need of the United Nations to planes and supplies from the United States to various fronts in Africa, the Middle East, and India. China has resulted in a chain of modern airports through the Caribbean and northern Brazil and across Asia. Though these will revert to the ownership of the countries in which they have been built as soon as the war is over, they open up new aerial highways for commercial airlines after the war, make possible new trade routes for the world's salesmen, and give a boost to the economies of the backward regions in which they have been built.

The problems of the monetary experts are difficult and diverse. They range from the unscrambling of Nazi-shuffled European holdings in industries, banks, and property to the providing of investment capital to rehabilitate China and develop its vast untapped sources; from starting Chile on its hydroelectric development to industrializing India. It is a task that can be blueprinted only after long study.

Scramble for Air Rights

Watch for fireworks when the time comes to draw up a postwar international aviation policy. The possibilities of commercial air transport are fantastic. One Air Transport Command, in which all overseas commercial services have been merged for the duration, flying 60,000 miles of scheduled routes outside the United States at the beginning of the year. Great modern airports have been built for ATC in Canada, Greenland, Iceland, South America, Africa, the Middle East, and China, and along all these routes it has its own meteorological systems and repair crews. No other air service in the world compares with it in miles flown or in volume of passenger and cargo traffic.

Though ATC is an Army Air Forces show, it is heavily staffed by commercial airline men, and its expanding traffic is handled by commercial planes under veteran commercial direction.

What this means to the future of commercial aviation is already foreshadowed. At least three commercial airlines which never operated outside the United States before the war have applied to the Civil Aeronautics Board for licenses to operate postwar international air service (BW—Apr. 24'43, p48).

Who Will Fly Foreign Lines?

Domestically, Washington must decide whether to concentrate its international services in Pan American Airways, as it did before the war, or to admit permanently such competing services as American Airlines' recent expansion into Mexico, and American Export Airlines' regularly scheduled runs to Great Britain.

But the domestic problem is far less serious than the one of international air rights.

Rep. Clare Luce forced the controversy into the limelight



the possibilities of commercial transport after this war are fantastic. Hundreds of airports have been carved out in the jungles of Africa, the rocky mountain valleys of China, or—like

the one above on the upper reaches of the Amazon River in South America—laid out along the banks of navigable streams where flying boats can be utilized. Drawing up an interna-

tional air policy which will share these vast new world air routes to the satisfaction of all is one of the difficult projects that must be solved at a pre-peace conference yet to be scheduled.

right with her "globaloney" speech. But months before this, President Roosevelt's Committee on International Aviation Policy began meeting three times a week in what is still a vain effort to formulate an international aviation policy for this country.

Britain is still in a state of nervous indignation over the Luce outburst. (No one seems to have yet consulted the Russians, though they control a region highly important for all polar routes and one that is bound to be important to the development of airlines in the Middle and Far East.) Getting a late start in the postwar commercial air race, London never acquired the leadership in the air that might have been expected of the world's greatest seafaring nation and the one with the most far-flung empire. Though Imperial Airways developed an excellent service through the Middle East and India to Singapore and Hong Kong, both Holland and France maintained comparable services to their colonial outposts in the Far East. And on the European continent, Germany's Lufthansa outflew any other line. Germany, France, and Italy jumped into the South Atlantic business with transoceanic lines from Europe, along the west coast of Africa, and then to Brazil. England never ventured into this field.

In the Pacific, the United States maintained the only regular service from San Francisco to Manila and Hong Kong, which Washington is now vigorously improving. In the North Atlantic, Pan American Airways handled

the lion's share of the prewar business. Now, while London has pushed Canada out of the transatlantic ferry traffic, several American commercial operators on the northern routes are each gleaning as much experience as their potential postwar competitors in England.

After the outbreak of war, Britain was forced to trim its commercial services to a minimum in order to free planes for military use. And because the United States has the greatest capacity to produce long-distance transports, its planes today maintain the 60,000 miles of ATC aerial highways—many of them along the British route of empire.

Today London wonders if the Americans who have built many of the key airports, installed the radio equipment and repair stations, and trained hundreds of pilots along these world-wide routes will give up willingly after the war.

And what about some of the other large countries,—nations that have been backward in the development of air transportation? Who's going to have the inside track when the postwar race to help China expand its air transport system starts? Americans backed the first commercial airlines in China, but both Britain and Russia may compete for this business after the war.

And what about South America? Though the United States had the most extensive international service in Latin America prior to the war, Germans dominated the domestic air lines of many of the republics. Will

they be allowed to come back? Brazil has already uttered an emphatic "no" by demanding that all domestic lines be nationalized. But, since the United States supplies most of the equipment and the technical aid, this country is still in a favored position. Can this be used to our advantage at the international conference table without damaging Latin America's growing goodwill toward the United States—an important consideration?

We also face such basic international questions as these: Are all nations going to agree to complete freedom of the air, or are we going back to the prewar status of rigid nationalization of the air over each country? Are we going to agree on standards of air transport, on the creation of certain international airports in each country, on the sharing of weather forecasts, and on competitive transport rates?

Drawing up a postwar international air policy is one of the most difficult projects confronting the powers.

New Maritime Lineup

Ocean shipping is another complex of problems. At the outbreak of the war, Britain was earning nearly £100,000,000 a year from her shipping services, and her merchant fleet totaled 16,321,000 tons, or nearly one-third of all the commercial tonnage in the world. The United States, in a firm second place, claimed slightly less than half as much tonnage and admitted that only a little more than 2,000,000 tons were used in foreign commerce. The rest plied the Great Lakes or operated in coastal service.

While the war lasts, it will remain a secret how much merchant tonnage each nation has, but it is impossible to conceal the drastic changes that are taking place in the lineup of the great shipping powers.

Both Britain and the United Nations are suffering tremendous losses from submarines. (Probably more than 1,000,000 tons of United Nations vessels were lost in March alone.) But Britain is replacing at the rate of less than 2,000,000 tons a year, while the United States built 8,000,000 tons in 1942, and will complete nearly 20,000,000 tons in 1943.

Without complete figures on sinkings, it is impossible to rate accurately the present comparative fleets of the leading powers, but Rear Admiral Emory S. Land, chairman of the Maritime Commission, recently provided the tipoff on the postwar problem when he told a congressional committee that the United States merchant fleet probably would equal Britain's by the middle of 1943 and might be as much as 25% larger by the end of the year.

There is consternation in Britain over this development. The alarmed General Council of British Shipping has already issued a report asking that the peace conference provide "effective guarantees against a renewal of the race in subsidies which marked the pre-war period."

Treasury officials in London register concern from another angle. They summarized their problem recently in this compact little table which demonstrates the importance of shipping revenue (along with the

income from foreign investments) in covering the foreign trade deficit:

British Balance of International Payments on the Eve of
(Millions of £)

British exports	500
Retained imports	900
Net foreign trade deficit	(—) 400
Income from foreign investments	200
Income from shipping	100
Miscellaneous services	50
Liquidation of foreign assets	50
Total	(+) 400

Behind Britain's basic problem of cutting imports and boosting exports so that the trade deficit will be no larger than can be covered by the earnings of its ship lines and of the country's foreign investments and services is the desperate hope that Britain can recapture its dominant position in the shipping world.

Competent authorities assert that English shipping costs are barely one-third those in the United States. Operating charges are traditionally lower. The British insist that, if these differentials persist after the war, they can in time recapture much of their former business—unless governments inaugurate an international subsidy race, which accounts for the appeal of the General Council of British Shipping.

Postwar shipping plans are more than an Anglo-American problem. Russia has been quietly building a modest merchant fleet. Norway, Holland, and Greece will want to buy or charter bottoms to go after the former share of the international carrying trade. France will be after the luxury travel business.

Can the United States successfully operate the 60% of the world's shipping that it will control at the end of the war? Or are we going to lease a part of our fleet to other nations?

Controlled transportation—both air and water—will be one means of policing the world. It can also facilitate the development of backward countries and rationalize uneconomic crosshauls. It vitally affects the foreign trade policies and balance of international payments of at least a dozen powers. It is one of the problems in which nationalism always plays a large rôle. The Combined Shipping Board—on which British and American shipping leaders serve—may have plans for the postwar period, but they have not been openly debated so far. That's a problem for another world conference not definitely scheduled.

REPRINTS AVAILABLE

Copies of "Our Stake in the Pre-Peace Conferences," latest in the series of periodical Business Week Reports to Executives, will be available in reprint form. Single copies of reprints will be mailed to Business Week readers upon request without charge. Additional copies will be billed at the rate of 20¢ apiece. On orders of 11 or more, quantity prices will be quoted on inquiry. Orders for reprints should be addressed to: Willard Chevalier, Publisher, Business Week, 330 West 42nd Street, New York, N. Y.

AVIATION

Wings for Future

House group clearing the decks for postwar expansion of airlines; fight over extension of federal jurisdiction seen.

Redraft of the Civil Aeronautics Act of 1938, which was sidetracked weeks ago, is being revived by a three-man subcommittee of the Interstate and Foreign Commerce Committee and is on its way toward House debate. Action on a redraft of the law is expected early this summer.

• **Room for Expansion**—Early in January, the Civil Aeronautics Board itself asked Congress to correct accumulating legal obsolescences so the board could handle expansion of the civil airline system from 8,000,000 traffic movements (1942) to 60,000,000 movements (estimated 1950). One traffic movement is one take-off or one landing. Measurement of air transport in terms of traffic movement is the basis of estimating requirement for airports, several of which were already saturated before the war started.

The redraft of the law (H.R. 1012) by Rep. Clarence F. Lea of California was sidetracked when another bill by Rep. Jack Nichols of Oklahoma proposed a new committee in the House to handle all aviation matters. Nichols' bill failed because the Interstate and Foreign Commerce Committee fought a strong, silent battle against it, exploiting the fears of many congressmen that the fleet-footed Nichols would be chairman, with Rep. Hamilton Fish next in line. Now the committee and Chairman Lea, an informed aviation man who wrote the original Civil Aeronautics Act of 1938, are set to rule the air legislatively.

• **Pro and Con**—There is no controversy over provisions that would authorize the board to investigate proposed delivery of all mail by air except that within over-night train distance; to study an over-all postwar program; to push development of all civil aviation; to tighten down on free passes; to strengthen the command of captains over their ships; to study and report on aviation insurance.

There is heated dispute, however, concerning federal jurisdiction in the navigable air space. State officials don't like the proposed further federalization of private, contract, and scheduled air transport; some state aviation societies are against it; some of the few air operators and individuals who still fly intra-

state don't like it. And some Republicans, who will make an issue of states' rights in the next campaign, are needling these irritations.

• **Clashes Seen**—A provision for the Civil Aeronautics Administration to zone the areas of airports used by commerce nettles local authorities as well as state officialdom. This would involve the removal of power lines, towers, buildings, trees, and other obstructions from the approaches to runways and probably would interfere seriously with private property.

The bill would forbid multiple taxation of the airlines by the states. This provision results from a recent decision by a court in Minnesota upholding taxes on all the equipment of Northwest Airlines that passed through the state. Otherwise, the bill leaves unsolved the continuous question of how the cost of airports and facilities should be divided

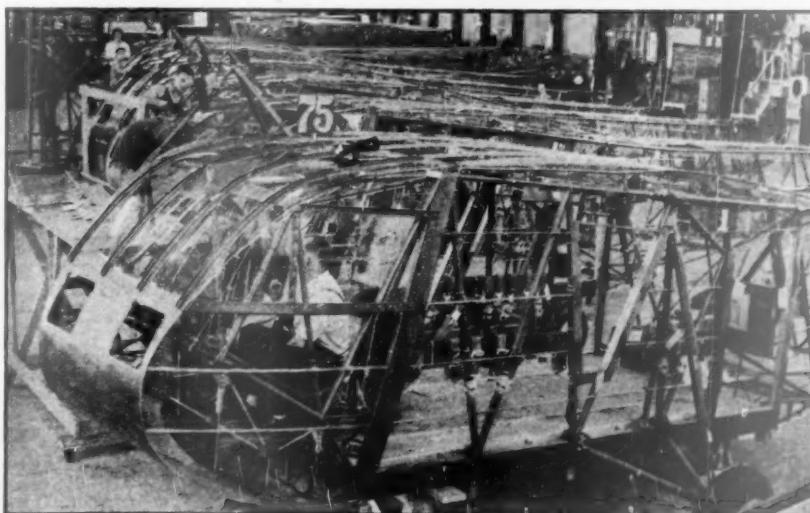
among the airlines, the municipalities that they serve, and the federal government.

• **A Hot Potato**—This is a hot issue because it reaches clear down into passenger- and mail-rate making, and because even rail and automotive competitors of the airlines have to pay taxes to support nonprofit airports. Taking advantage of the scuffle over H.R. 1012, the railroads are punching at an exposed aviation chin now and then.

The airlines are all set for swift post-war expansion from 350 planes (prewar strength) to a fleet variously estimated at from 2,000 to 7,000. They hope to snag a lot of the Pullman trade. The airlines have hired rail traffic experts to tell them how to outsmart the railroads, and the railroads have posted some of their brightest young men to analyze airline cost and earning sheets. Rail men are planning the snappiest of diesel and streamline combination day-coach and sleeping service in order to minimize the attractions of the airlines for passengers and also so as to steal trade from the bus lines.

FLYING "ICEBOXES"

From production lines that once turned out refrigerators, transport gliders (below) are now pouring in a continuous stream. The conversion has been made at Greenville, Mich., by Gibson Refrigerator Co., since WPB froze its peacetime products. Completely fitted at the plant, the gliders go to war capable of landing 15 fully equipped soldiers or a combination of men and jeep or howitzer behind enemy lines. They are towed by planes with strong nylon rope (right), which costs several hundred dollars a coil, partially explaining why women now wear cotton stockings.





When you want to know
GO TO AN EXPERT

DON'T TAKE our word alone for the fact that Rising papers will give your business letters the presence and authority they deserve.

Get your printer's impartial opinion. He knows how important it is to use the finest quality paper to get the finest printing results. That is why for years we have been supplying these same experts with papers for letterheads as well as many other specialty uses.

You will find you pay no more for Rising quality. Three grades: Rising Bond (25% rag), Rising Line Marque (25% rag), Finance Bond (50% rag), Rising Parchment (100% rag). Prices on a par with other quality papers. The Rising Paper Company, Housatonic, Mass.



ASK YOUR PRINTER - HE KNOWS PAPER

International Port

Air terminal proposed for joint use of U.S. and Canada in Windsor with a high-speed highway to Detroit.

Out of Detroit's desire for a more accessible air terminal has emerged a proposal for the first international airport in the world. The proposal is to construct the field in Windsor, Ont., near the Ambassador Bridge, and move traffic to and from downtown Detroit in 15-minute time via a limited access way. Since extraterritoriality is involved, it is likely that the final decision will be made by the capitals of both nations.

• **Favorable Reactions** — Windsor and Detroit committees have received initial favorable reactions from Canadian and U. S. officials. The makeup of these groups is indicative of the interest the plan has aroused. The Canadian contingent includes Norman A. McLarty, secretary of state in the Dominion; the chairman of the U. S. committee is J. Lee Barrett of Detroit, recently mentioned as a possible new U. S. minister to Ottawa.

Detroit sponsors believe the project



IN THE NOSE

With little more than a plastic bomber nose (above) and an exhaust pump, sensitive aircraft instruments are now checked under stratospheric conditions—on the ground. To simulate altitudes up to 40,000 ft., engineers merely invert the nose over their instruments and pump out air to the correct pressure. The new, simple test chamber is the product of Camden (N. J.) laboratories of Radio Corp. of America to replace complicated steel and glass equipment formerly used.



Cool light means efficient light

There is a reason why cool fluorescent light is the most efficient practical light known. It's simply because a fluorescent lamp transforms electrical energy into more light and with less heat than other light sources.

For fluorescent light production involves an electro-chemical process rather than a heat process. That is,

ultraviolet radiation of a precise wavelength causes the fluorescent powder coating inside the tube to emit light, rather than heat energy in the form of invisible infrared radiation.

And there is a reason why Sylvania Fluorescent Lamps are as coolly efficient as modern research can make them. Sylvania engineers have drawn on years

of specialized and basic experience with incandescent lamps, radio tubes, ultraviolet lamps and other electronic devices. Their aggressive and independent research has helped to make fluorescent a "must" for precision war production, and the best lighting for your home when Victory is won.

Sylvania's tireless research makes continued and consistent improvement possible. For more output, longer life and uniform color — specify Sylvania Fluorescent Lamps in authorized new installations and replacements.

SYLVANIA

ELECTRIC PRODUCTS INC.

Formerly Hygrade Sylvania Corporation
Salem, Mass.

INCANDESCENT LAMPS,
FLUORESCENT LAMPS, FIX-
TURES AND ACCESSORIES,
RADIO TUBES, ELECTRONIC
DEVICES.

FAR MORE LIGHT AND LIFE FOR YOUR MONEY

Compared with 1939 a dollar invested today in Sylvania Fluorescent Lamps buys more than four times the lumen output and approximately five times the lamp life.

SYLVANIA
FLUORESCENT
DOLLAR
BUYS:



(Based on decreasing price and increasing efficiency and durability of Sylvania 40-Watt White Fluorescent Lamp)

Even on existing circuits, a change-over to fluorescent-Sylvania Lamps, Fixtures and Accessories—will probably more than double the light you get for the same wattage.





PORTAGES and PROFITS



Maine's a great State for camping and canoe trips. But that's only one of the feathers in Maine's bonnet!

For Maine offers five big advantages that make it an ideal, profitable site for industrial plants:

1 Power. Power facilities in the Pine Tree State are abundant.

2 Natural Resources. Particularly in hard and soft woods, Maine is blessed with ample resources.

3 Skilled Labor. Maine labor is friendly to management, industrious, loyal and famous for "down-East ingenuity."

4 Transportation. Maine industries enjoy fast transportation service, are overnight from major Eastern markets.

5 Low Taxes. Maine's favorable tax situation invites investigation by profit-minded business men.

Want some down-to-earth details? Write for your free copy of "INDUSTRIAL MAINE"—a little book with a big message! Address:

Maine Development Commission, Room 5-B, State House, Augusta, Maine.

P. S. Machine shop facilities, suitable for war sub-contract work, are still available in Maine.



MAINE
DEVELOPMENT
COMMISSION

could be constructed for about \$8,000,000, possibly with lend-lease funds. This sum would permit the Canadian government to acquire the necessary land and equip it to handle the heaviest and largest air-borne traffic. It would also allow for means of access to the international bridge and transit by overhead highway from the American end of the bridge to downtown Detroit.

• **Duty-Free**—Passengers and freight originating in the United States and bound by plane for U. S. points would travel the route duty-free and would not be examined by customs or immigration officials of either nation. International traffic, of course, would be subject to customary border checkups.

The field, in addition to the customary runways, hangars, and terminal buildings, would include Canadian and American customs, immigration, and post-offices, as well as other facilities.

• **Symbol of Amity**—Allen Brett, Detroit engineer, conceived the idea and presented it to influential citizens on both sides of the Detroit River, as an answer to Detroit's airport worries and as a symbol of international amity.

A second airport proposal was presented to Mayor Edward Jeffries' airport committee by James B. Steep, transportation engineer of Giffets & Vallet, architects. This called for the building of structural steel grillwork causeways 150 ft. above street level downtown. It would have runways 200

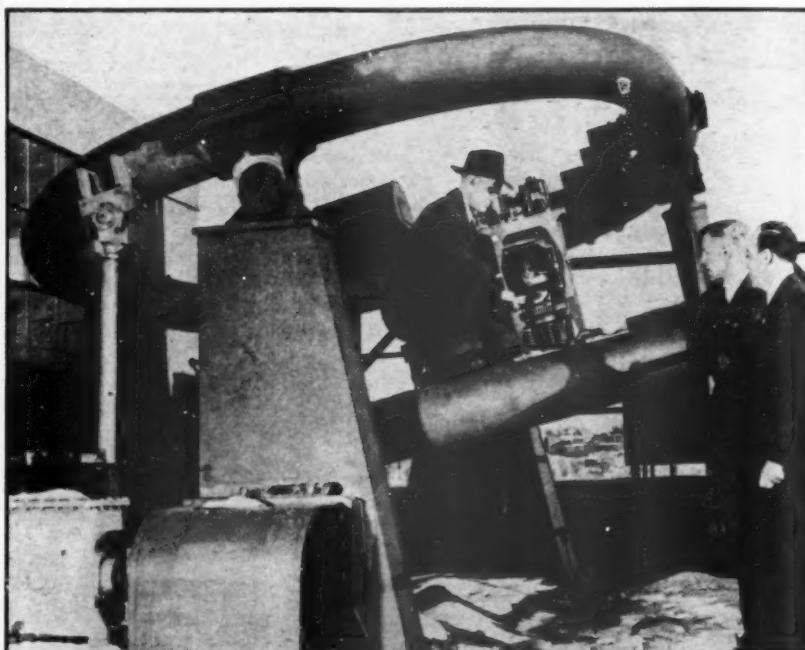
ft. wide and approximately 3,800 ft long, grouped near the Michigan Central railroad yards. Costs were estimated at about \$6,000,000 for the steel involved, probably twice that much for the whole job.

FEWER PLANES, MORE MAIL

Air mail volume is up 75%, even though the airlines have been able to keep fewer than half the planes that were in service at the start of the war. In February, 1942, the lines collected 3,506,871 lb. of mail from 169 cities. In February, 1943, the load was 6,133,243 lb., an increase of 74.89%.

Not all of it gets immediate clearance (BW-Apr. 10 '43, p. 5), although the Post Office Dept. doesn't say how much mail is being delayed in favor of priority cargo and passengers. Officials insist that much of the air mail dumped for space is picked up again within an hour or two. The Post Office has asked air mail patrons to use special thin stationery, which reduces weight as much as 75%, but says it will not ask the public to refrain from using the service.

From 352 transports at the start of the war, the airlines' equipment has dwindled to 166 planes (BW-Jan. 30 '43, p. 14) through government levies. Even if they get a few more planes, the feeling persists that the rising flood of air mail is bound to create a problem calling for some sort of restriction.



MECHANICAL BOUNCER

Naval or aircraft equipment and instruments can be given shakedown cruises on dry land. Testing apparatus (above), developed by General Elec-

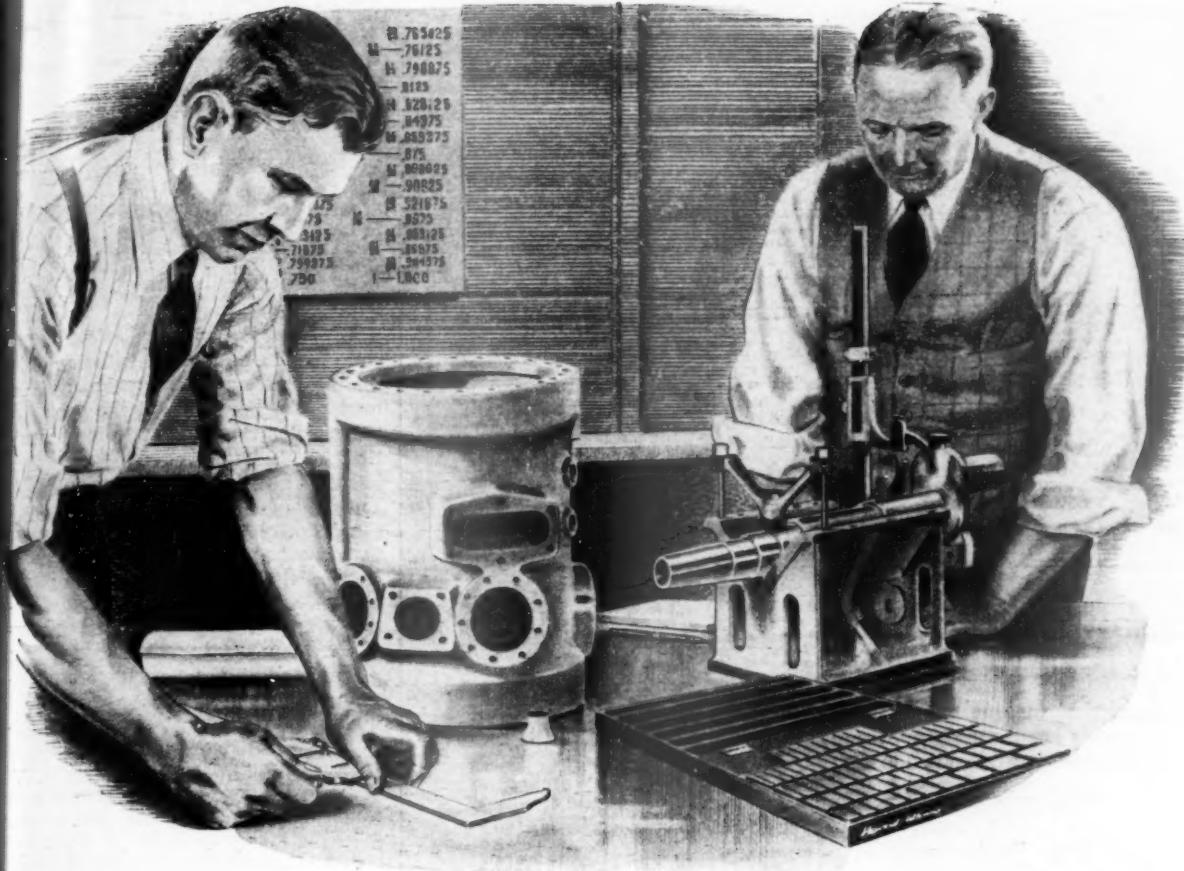
tric Co., simulates every type of pitch and roll that war equipment will undergo at sea or in the air. Space is available in the so-called seasickness machine for an unlucky engineer to observe the tests.

0 ft
Cent-
ated
l in-
for

AIL
even
e to
that
war.
ected
s. In
243

ance
Post
mail
cargo
uch
is
two,
mail
ery,
%,
re-

of
has
43,
en
sel-
air
ng



WHERE HAIRS ARE GROSSLY INACCURATE



The super precision of America's war weapons calls for tolerances measured in tens of thousandths and millionths of an inch. Temperature and humidity control is essential in gauge rooms! Metals shrink or expand beyond rigid specifications when temperatures change . . . specks of dust . . . even fingerprints caused by excessive humidity can bring about the rejection of many hours of fine craftsmanship.

Throughout all industries, Chrysler Airtemp atmospheric control and refrigeration equipment is playing a vital role. Precision assembly areas, zero welding, coolants for high-speed cutting, metal and material storage, product testing, food preservation, drinking fountains . . . all need the benefit of temperature control.

Ways to whip production problems, eliminate waste, reduce rejects, improve plant efficiency . . . are described in a new booklet . . . *Chrysler Airtemp At War*. Send for your copy.



Lens Grinding



Link Trainer



Precision Assembly

CHRYSLER AIRTEMP
AIRTEMP DIVISION OF CHRYSLER CORPORATION • DAYTON, OHIO

CHRYSLER AIRTEMP
Dayton, Ohio

Please send me, without obligation,
"Chrysler Airtemp at War".

Name _____

Firm _____

Address _____

PRODUCTION

Want Plastics?

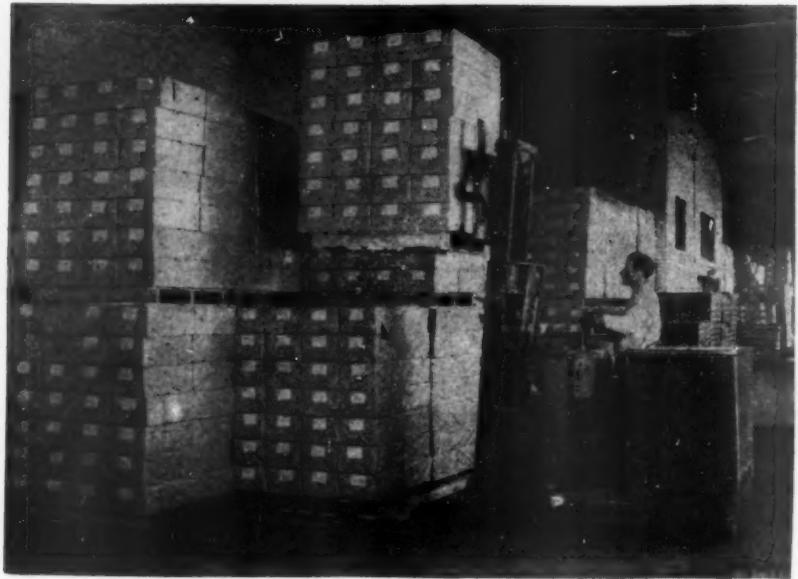
Raw material, manpower shortages limit production, and WPB allocates output. Here's how the supply looks.

War's impact on the plastics industry continues to be violent, with the main difficulties lying in raw material needs, manpower shortage, and the complexities of allocating plastics to most essential end uses (BW-Nov. 7'42, p68). A few days ago, Clinton Rector and J. R. Turnbull of WPB's plastic section urged the industry to concentrate on usages necessary to win the war, utilization of female help, and the elimination of unnecessary operations. About 50 allocation orders to maintain a balanced supply of chemical raw materials have been issued in addition to seven covering distribution of the plastics.

• **Here's How They Stack Up**—The outlook for the remainder of the year:

Ethyl cellulose (Ethocel, Hercules E. C.) has been in such short supply that some important military uses have gone unfilled. Even the expected increase in production toward the end of the year will not remove it from the critical classification.

Cellulose acetate molding materials (Bake-



MULTIPLYING SPACE

Of the various ways in which modern material-handling methods are aiding war production, the tiering of stores is one of the most universal of all.

It multiplies the utilization of storage space without the waste of man-hours that once would have been involved in passing materials up and down by hand in small units.

There is virtually no major war plant that does not tier its stores by either high-lift platform or fork truck; and the savings in space and man-hours—both so precious today—can be devoted to direct production.

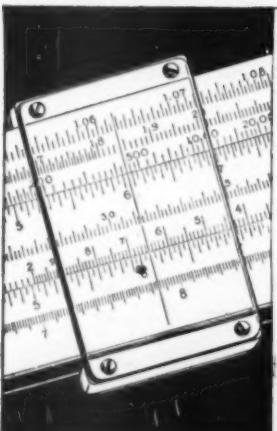
Non-war industries will find equal profits in the same methods when peace comes.



THE INDUSTRIAL TRUCK STATISTICAL ASSOCIATION

208 SOUTH LA SALLE STREET • CHICAGO, ILLINOIS

MEMBERS—Truck Manufacturers: AUTOMATIC, BAKER, CRESCENT, EASTON, ELWELL-PARKER, MERCURY AND YALE.
Batteries: EDISON, EXIDE AND PHILCO; Battery Charging Equipment: ELECTRIC PRODUCTS AND HERTNER.



QUICK ACTION ON ENGINEERING PROBLEMS

MANAGEMENT DESIGN CONSTRUCTION

SANDERSON & PORTER ENGINEERS AND CONSTRUCTORS

52 WILLIAM STREET
CHICAGO • NEW YORK • SAN FRANCISCO



DONE WITH MIRRORS

In a new armor plate plant, now being built, hot steel slabs will shoot from rolling mills at shoulder height—too high to measure with customary hand gages. A Westinghouse experiment with three mirrors solves the problem. One mirror reflects the slabs, another a black white-lined chart, and both are aimed at a third mirror where chart and slabs are superimposed.

Fibestos, Herculoid, Lumarith, Nixide, Plastacele, Tenite I) have been hit during the past two months by increased military uses and a falling production rate caused by shortage of raw materials including plasticizers. An allocation order is predicted. The same applies to cellulose acetate butyrate molding material (Tenite II).

Cellulose nitrate (Celluloid, Nitron, Nixid, Pyralin, Hercules C. N.), on the other hand, is the only raw material in the cellulose group with a currently favorable future. Because of a good supply of camphor plasticizers, linters, and nitric acid, an allocation order for nitrocellulose (N-196) has been rescinded.

Methyl methacrylates (Crystalite, Lucite, Acrylic) are growing to the point where military requirements will be met for both cast sheet and molding material. By the end of the third quarter, plant expansion started last year will be completed which is expected to stabilize these materials and certain special polymers and copolymers for nonplastic uses so that no more shortages need be feared, barring change in military demands.

Polystyrene (Bakelite, Loalin, Lustron, Styron) is limited only by the availability of styrene monomer and is expected to be adequate for military demands, especially electric insulation. Civilian use is not likely, however.

Monomeric vinyl acetate production by July 1 should meet requirements of practically all polymer plant operations. Some resins such as polyvinyl butyral (Butacite, Varn, Saflex, Vinylite) and polyvinyl alcohol (PVA, Resistoflex) will meet only direct and indirect military needs.

Polyvinyl acetate resins and emulsions, substituting in adhesives where latex was used in the shoe industry, in fabric treatment, and in food packaging, have been increasingly available for civilian use.

Polyvinyl chloride resins (Koroseal, Vinylite) containing above 92% vinyl chloride sufficient for military and essential civilian purposes. Scrap is being tried out on such civilian products as weather stripping, floor mats, tubing, gaskets, and shoe soles and heels.

Polyvinyl chloride acetate copolymers (Vinylite) for three months have filled military and essential civilian demands. No other material would have been satisfactory.

Vinylidene chloride (Mills, Saran, Vecilon) uses have grown rapidly, and it may have to be withdrawn gradually from the civilian applications where it has been a metal replacement.

Synthetic phenol production (for phenol formaldehyde, like Bakelite, Catalin, Durez, Urethane, Gemstone, Heresite, Indur, Insurok, Bakalot, Marbllette, Neillite, Opalon, Resor, Textolite, Co-Ro-Lite) should be up 50% because of facilities under construction but, because of new uses, will not be enough for any but essential war uses.

Melamine formaldehyde resins (Catalin, Elmoc, Plaskon), limited by the melamine available, will be up 50% by July 31 and should then take care of all direct and indirect military requirements.

Urea formaldehyde plastics (Bakelite, Urethane, Cibaneoid, Plaskon, Uformite) are dependent on urea crystals production which cannot be readily expanded; but if formaldehyde capacity now under construction

HELPING BOOST THE BOMBER BIRTH RATE



● Before a Flying Fortress... or any other war plane... takes to the air, an amazing number and variety of parts must be fabricated, assembled and tested. Should fire occur anywhere along the line... throwing production schedules out of time... the bomber birth rate is likely to take a dangerous nose dive.

There are Allied planes making it tough for the Axis today that wouldn't be in the air except for the fire extinguishing performance provided by Cardox Fire Extinguishing Systems.

Engineered applications of Cardox Systems are guarding against delay of vital war industry—for example, in plants producing:

Airplanes, Aviation Engines, Aviation Carburetors, Airplane Parts, Engine Parts, Plastics, Rubber Products, Processed Fabric, Tanks, Tank Engines, Cold Strip Steel, Armor Plate, Forgings, Solvents, Motor Fuel, Electric Power.

Cardox Fire Extinguishing Systems give a maximum of protection... guarding time

as well as equipment... because (1) immediate extinguishment by cold, inert carbon dioxide, which quickly smothers and "cools out" large or small fires; (2) machines and materials can be back in production quickly since there is no damage by the fire extinguishing medium.

Today Cardox is concentrating its engineering and manufacturing facilities on two vital phases of America's current emergency: (1) The design and manufacture of Cardox Fire Extinguishing Systems needed by a wide range of war industries to maintain and increase the birth rate of battle equipment; (2) working with industry on plans to increase the efficiency of fire protection both today and after the war.

If you would like more information, write on company letterhead for Bulletin 1053.

CARDOX CORPORATION BELL BUILDING • CHICAGO, ILLINOIS

District Offices in New York • Washington
Detroit • Cleveland • Atlanta • Pittsburgh
San Francisco • Los Angeles • Seattle

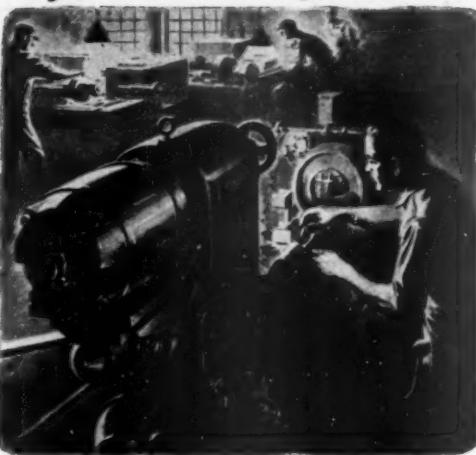


NON-DAMAGING FIRE EXTINGUISHING SYSTEMS

This motor got on the job



"Rush new motor Air Express" was the order a supplier received at 9 A.M. Ready for pickup at 10, it was taken to the airport, flown hundreds of miles to destination . . . and installed on a vital war job that same afternoon.



This motor was delayed



Shipments ready for morning pickup but held for "late afternoon" routine, may be subject to delay. Heavy, peak-hour traffic may keep them grounded until a midnight or early morning plane.



For FASTEST delivery-Air Express!

To move emergency parts and critical material at 3-mile-a-minute speed, Air Express is on the job around the clock—not only on the home front, but working hand in hand with Army and Navy Air Transport services to supply our fighting fronts throughout the world.

You can help us give you the most

efficient service in two important ways: **SHIP EARLY**—as soon as shipment is ready—to assure *fastest* delivery. **PACK COMPACTLY**—to conserve valuable space. Get our handy "Shipping Estimator" for finding costs and transit time. Write Dept. PR, Railway Express Agency, 230 Park Avenue, New York City.



Phone RAILWAY EXPRESS AGENCY, AIR EXPRESS DIVISION
Representing the AIRLINES of the United States

removes a formaldehyde shortage, they will fill all military and essential civilian requirements.

Vulcanized fiber (Diamond, National Taylor, Vulcoind), recently placed under allocation by Order M-305, is expected to be sufficient for military and industrial demands as well as those of our Allies.

Casein (for Ameroid, Galorn), now distributed under M-307, has been limited by low price and the competitive demands for edible dry milk.

Some of the more important uses of these plastics are: ethyl cellulose—good at arctic temperatures and for canteens, lacquers, wire insulation; cellulose acetate—gas mask lenses, valves, and stems as well as cockpit windows in noncombat planes; nitrocellulose—T squares; acrylates (methyl methacrylates)—combat aircraft inclosures, navigators' windows; polystyrene—high-frequency electrical insulation; polyvinyl butyral—bullet-proof glass, rubber substitute in life rafts, raincoats, pontoons; polyvinyl chloride acetate copolymers—noninflammable insulation for ship cables; vinylidene chloride—packaging aircraft and ordnance parts, substitute for copper tubing in iceboxes and other places where temperatures are not above 200 F.; melamine formaldehyde—electric insulation; urea formaldehyde—bonding resin for plywood; phenol formaldehyde—high-strength parts, bonding resin for plywood.

Tests Bear Fruit

Inspection of facilities for die-casting aluminum and zinc already cover 60% of industry; certifications to follow.

WPB's program for the inspection of die-casting facilities, aimed at disclosing producers who can do high precision work for the armed services, is well under way. Plants of 23 die casters, representing over 60% of the industry, are now being inspected; before July 1, it is believed that all recommendations will be in.

• **Certification Program**—These will be made to Harvey A. Anderson, deputy director of the Conservation Division and the government's presiding officer of the die-casting industry's advisory committee. He will certify satisfactory plants as qualified producers of special quality zinc or aluminum die castings.

The authorities feel that such castings should not be placed indiscriminately by the services, since these parts are more expensive and difficult to produce than the usual commercial castings. A technical subcommittee of the advisory committee, under the chairmanship of D. L. Colwell of WPB's Conservation Division, is available to judge contemplated special quality ratings of



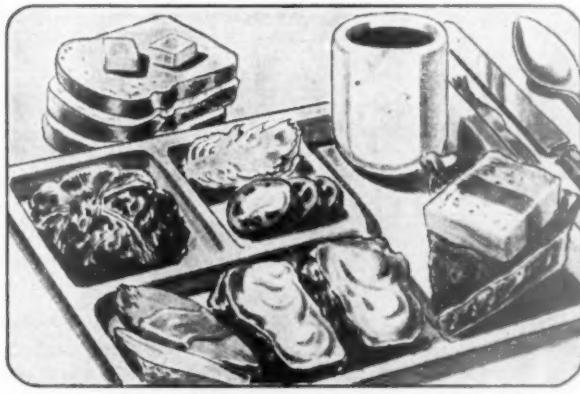
2 You know this is true if you've tasted any of the delightful new dehydrated soups. So simple . . . so economical . . . a ten cent package serves four! Yet behind this miracle of food are years of Taylor experience in perfecting the precise controls essential to uniform, accurate processing in the vast quantities required.



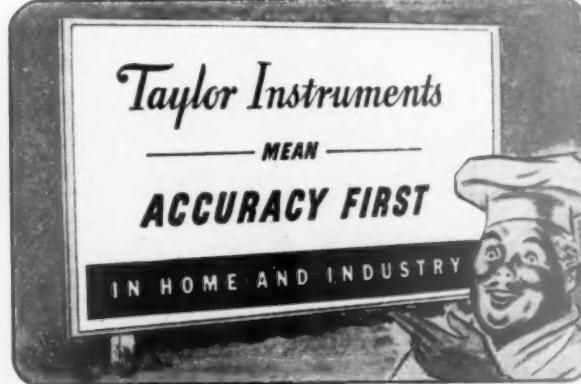
4 If you have a Taylor Roast Meat Thermometer, you know Taylor Accuracy. Saves up to 25% of a roast! Today Taylor accuracy is helping to win the war. Most stores still have Taylor thermometers and barometers. If you can't get what you want, remember . . . Taylor's war experience will bring you even better instruments later!

What do the new Dehydrated Foods really taste like?

1 Shrinking a carrot to one tenth its size sounds like a good trick, but what does it taste like? Here's the answer: If the drying process is automatically controlled by Taylor Instruments, dehydrated foods can compare favorably with fresh vegetables! Very little is lost but the water . . . which you put back!



3 Uncle Sam is buying almost all this year's dehydrated foods. They need no refrigeration, weigh far less than canned goods, take so little storage space it's easy to send a square meal to soldiers anywhere. Thanks to Taylor accuracy, they're sure to find a permanent place in our diet at home, too . . . after the war or sooner!



5 TO WAR PRODUCTION MEN: Anybody making essential war products can get Taylor Instruments under priorities. Your Taylor Field Engineer is ready to help apply Taylor accuracy to any problem . . . or he can help make present instruments last longer. Taylor Instrument Companies, Rochester, N. Y. and Toronto, Canada.

individual castings to prevent overburdening certified facilities.

• **Skill, Experience Demanded**—Qualifications demanded are rigid. Both aluminum and zinc die casters are required to have "readily available" X-ray equipment of 140-kv. or greater capacity and must agree to use it in accordance with instructions of the purchaser. Physical testing facilities must be adequate and must include a standard A.S.T.M. test bar die, a tensile machine, and an impact machine. Producers must evidence "adequate engineering and mechanical ability, skill, and experience."

Aluminum die casters must agree to supply castings equivalent to A.S.T.M. specification ES-29 for "Special Quality Aluminum Die Castings (Pressure Molded Castings)" for critical applications and demonstrate their ability to do so. They must also have available high-pressure cold chamber equipment of approved design and construction.

• **Requirements for Zinc**—Zinc die casters must agree to produce castings equivalent to A.S.T.M. specification B186-42T for "Special Grade Zinc Base Alloy Die Castings" (for critical applications) and demonstrate their ability to do so. To avoid contamination of alloys, hence weakened castings, they may neither produce nor process lead- or tin-

bearing products except in separate buildings located at some distance. They must also have available spectrographic equipment and demonstrate ability to control composition to the rigid limits required.

Rigid production controls and inspection methods are required of both types of producers.

• **Critical Metals Rated**—Magnesium is not sufficiently plentiful to be used indiscriminately but has loosened sufficiently to allow wider use in military equipment. Particularly in air-borne or hand-borne equipment can the use of magnesium now be considered.

For the first time in months, magnesium was not carried at the top of the list of the most critical nonferrous metals when WPB issued Material Substitutions and Supply List No. 8. It dropped to fifth place, behind aluminum, cadmium, bismuth, and tin. Only copper and zinc, in that order, are less critical than magnesium.

• **Magnesium Castings**—This easing does not apply to all fabricated forms, particularly sheet and extrusions, but, on the strength of it, facilities for die, sand, and permanent mold castings of magnesium are being increased. As a result of this capacity boost, WPB plans to apply its program for certification of die casters capable of special high-precision work to magnesium.

Couldn't Say No

Without critical materials, Texan compounds vent pipe of concrete, asbestos, and "mystery" mineral to meet challenge.

The owner of one of the busiest small war industries of the nation in Dallas is proving again the truth of the old saw, "It's an ill wind that blows nobody good."

• **No Strategic Materials**—Charley Morris was about to be blown out of the heating business by the ill wind of war that blew away all chance to get metals for ventilation pipes and chimneys. But that same ill wind has blown him, he says into a unique position in his field—manufacture of vent pipes and chimneys that require no strategic materials, that cost but a fraction of standard pipes, that take but a fraction of the former time to erect.

Morris was about broke last June when a friend in the U. S. Army Engineers asked if he could fix up a vent pipe for a large Texas Army camp that was converting from gas to coal heat. No metals were available.

• **Survived Tests**—Working all night with nonstrategic materials, Morris got a model ready by dawn. He dried it in his kitchen oven. Dubious Army engineers looked askance at the pipe, which was made of concrete, asbestos, and a Texas mineral, the name of which is a trade secret, but which is plentiful and easy to transport. They put it through all kinds of tests—heated it to 2,000 F., then hurled it into cold water. It didn't show a crack. They dashed it to the floor; still it stood firm.

Still unwilling to accept such a departure from standard heating processes, the engineers sent the model to government laboratories in Washington. It held up there, and Morris was called to the capital. The result was contracts for thousands of pipes.

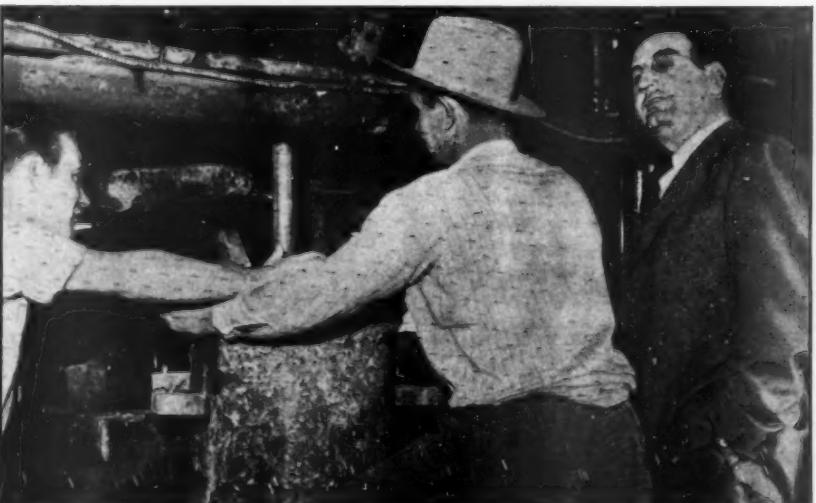
• **Plant from a Ford**—Morris rushed home to enlarge his three-man plant himself and two employees. No building materials were available. He scoured junk piles and built a plant from parts of a Model A Ford and an old merry-go-round. He doctoring the carburetor to use natural gas, used the Ford rear end for reduction gears.

In less than a year, his staff has grown to over 300 persons. In addition, several subcontracting plants are operating in Dallas, and Morris is head of another plant in Chicago. All told, around 700 men are making his pipes now.

• **Better Draft Claimed**—The secret of the pipe's success, Morris says, is that there is practically no expansion or contraction under intense heat. He claims better draft properties for his chimneys.



From a secret Texas mineral, combined with concrete and asbestos, a unique Dallas plant makes ceramic piping that ranges from 3-in. gas vents to big smoke stacks (left). Developer of the process and owner of the plant is a former orchestra leader, C. E. Morris (below right) who put together his production line from such odds and ends of junk as an automobile differential, parts of an old merry-go-round, and discarded iron piping.



because the materials used in them insulate the pipes or stacks. In one test, a temperature of 2,000 F. was registered inside one chimney, yet the outside of the 2-in. pipe was touchable.

Morris' pipes are not baked, like tile and clay. The patented material is placed in a mold. Then an auger-like tool descends into this mold of material and trowels the pipes to size.

• Set up Quickly—Another reason why the Army and Navy snatched up all the pipes he can make is, according to Morris, the tremendous reduction in cost and time of erection. Because his pipes are prefabricated, the sections can be telescoped together for one-tenth of the labor erection costs for orthodox brick or metal chimneys. They need no deep-set foundations.

On one job, Morris erected a 50-ft. stack in three hours. Allowing time for foundations and brick-by-brick or metal section-by-section erection, it would have taken several weeks for a standard type of chimney.

• Seven Acre Plant—His plant, which occupied a 20x30-ft. warehouse when he started on June 24, 1942, now occupies seven acres. Three shifts work 24 hours a day.

THE CASE FOR CASEIN

Production of industrial casein, used mainly for such essential civilian and military products as adhesives, plywood, and waterproof cartons, will probably be only half of normal in 1943 because the low price, 21¢ a pound, isn't attractive enough to compete with the demand for dried milk. Casein is the protein of skimmed milk that has been precipitated, washed, dried, and ground. Esti-

AUTOMOTIVE JACKPOT

Production of armament by the automotive industry is at a rate close to a million dollars an hour. Figures of composite output by auto and truck makers, parts and accessories producers show shipments of \$1,780,000,000 in war goods during the first quarter of this year—and the rate has risen.

This compares with \$636,000,000 during the first quarter of 1942, and with \$4,648,000,000 in deliveries during the entire 1942 year.

The current figures are subject to revision, due to possible contract renegotiations and voluntary reductions in prices. Many such revisions have already been made, indicating that the first quarter's output was at least triple that of the first quarter in 1942, even though the dollar figures do not bear out that conclusion.



Illustration by Herbert Morton Stoops

Free country-ain't it?

Before the Revolution, the stamp tax and high postage rates made the Crown postal service very unpopular in the colonies. After the Revolution, the new United States Post Office operated in competition with all kinds of private carriers. Despite the fact that the private delivery of letters was supposed to be illegal, any postmaster who dared to protest invariably met with the glib repartee, "Free country, ain't it?" And the citizens invariably sided with the independent but illegal carrier!



world's best... Today, handicapped by wartime shortages of men and transport, our postal system is hard pressed to maintain its usual high standards of service, requires your intelligent cooperation. Mail early and often. Avoid the end of the day peak. Tie your letters in bundles, faced up. Time your mail to meet train schedules. Help the Post Office to help you!

PITNEY-BOWES, world's largest manufacturer of Postage Meters, and the originators of Metered Mail... is now engaged in war production. Yet all our experience in handling and expediting mail is at your service. Call any office.



Pitney-Bowes POSTAGE METER CO.



Branches in principal cities. Cf.
phone directory. In Canada:
Canadian Postage Meters, Ltd.

1458 Pacific St., Stamford, Conn.



**"LIKE TO JOIN
THIS
BEACH PARTY?"**



"I'M BRINGING cold steel instead of hot coffee—bullets instead of sandwiches—and we'll have gunfire, not campfires.

"Want to help me dish it out? You can—by what you do at home. And what you get the other fellow to do.

"Know how the home news strikes me when I see a paper? It makes sense when I see that War Bonds are booming and the Red Cross drive is going over big. But I can't see this 'absenteeism'. That wasn't in the dictionary when I sailed. You can quote me on that personally, and pass the word along.

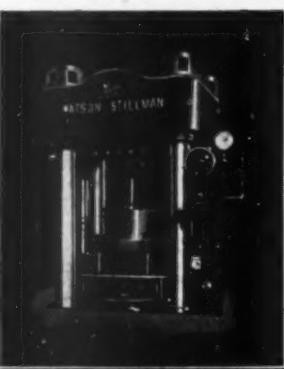
"Out here, it's 'git or git got'. With your helping, we'll be the ones who do the 'gittin'."

★ ★ ★

This message is one of a series dedicated to our common goal, total victory over the Axis aggressors.

Watson-Stillman is fortunate to be able to serve America's armament industries with hydraulic presses, jacks, pumps, valves and forged steel fittings. These W-S products hasten the output of weapons, planes, tanks and ships.

The Watson-Stillman Company, Roselle, N. J., Engineers and Manufacturers of Hydraulic Presses, Pumps, Wire Rope Shears, Jacks, Forged Steel Fittings and Valves.



WATSON-STILLMAN

Hydraulic Equipment, Valves,
Forged Steel Fittings

MAKES BULLETS
FOR BEACH LANDINGS

Every time it's operated, this Metal Extrusion Press "bears down" on the Axis with its 1350-ton pressure. It is used in the making of bullets and is one of scores of types of W-S presses adding to the output of arms and ammunition for our fighting forces.



For Victory ★★★ Let's all be Scrappers

mates place this year's production at 15,000,000 lb.

Small amounts are being imported from Australia, New Zealand, and Canada, but the prewar source of imports—Argentina—hasn't sent any for almost a year because of lack of shipping space. WPB has issued import licenses for "limited tonnage" of casein to Argentina where some 25,000,000 lb. are piled up ready for export. Nevertheless, the outlook for imports is poor.

There are less than a dozen important producers of industrial casein in the U. S., the Casein Co. of America, Shiefield Farms, Hercules Powder Co., National Casein Sales, and American Cyanamid among the leaders. Casein is also used in gypsum, insecticides, paint, plastics, leather finishes, wallpaper, and rubber.

Zinc Replaced

Western Electric process for coating iron with lead is made available for the use of all war industry.

All manufacturers are free to use Western Electric's recently revealed but time-tried hot-dip process of coating iron and steel parts with lead "during the war insofar as any patents . . . are concerned." Back of the company's announcement is a desire to assist WPB and the war effort by conserving scarce zinc normally used for hot-dipped galvanized coatings.

• **A Bonding Problem**—Early in 1941, Western Electric executives foresaw the necessity of finding a new weather-resistant coating for galvanized pole line hardware. They considered organic finishes and various lead alloys. Because organic lacquers and alloying metals like antimony and calcium were almost as scarce as zinc, they decided to see what commercial lead would do. Because no alloying layer is formed between iron and lead, as it is between iron and zinc, the problem was to secure an enduring bond.

Stripped of technicalities and details (which are available at Western Electric's New York information office), the answer to the problem came in a fluxing solution of zinc ammonium chloride into which parts are dipped just before they go into the hot lead. By July, 1941, a zinc-dipping unit had been converted to lead by the simple expedient of adding the new metal, skimming off the lighter zinc, and reducing the temperature of the bath about 100 degrees to a new and fuel-saving temperature of 690 F. to 710 F.

• **Scope of Operation**—The unit has been running ever since at an hourly rate of approximately 3,500 lb. of lead-coated hardware.

NEW PRODUCTS

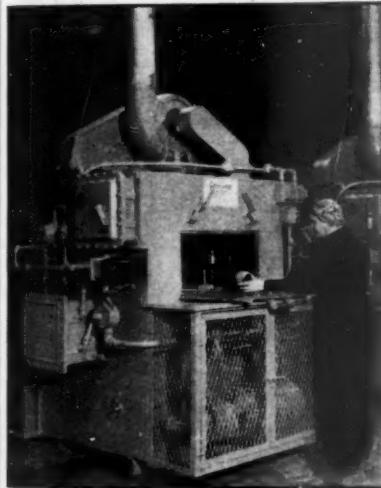
Heat-Resistant Thermoplastic

Newest development of E. I. du Pont de Nemours & Co., Plastics Dept., Wilmington, Del., is High Heat-Resistant Lucite (methyl methacrylate resin). It comes as a molding powder for injection molding and extrusion, in granular form for compression molding. Articles made therefrom "will not soften appreciably or distort when exposed to a temperature of 212 F., the boiling point of water. This is 30 F. to 40 F. above the useful temperatures for similar articles made from other commercial molding powders."

The formulation was developed for use in airplane flying-light lenses, dial and meter faces, medical and dental instruments subject to sterilization. It is said to have approximately the same mechanical, electrical, and optical properties (including light bending) as general-purpose Lucite. Injection and extrusion, however, require temperatures 30 F. to 50 F. higher; compression requires 20 F. to 50 F. higher. It may be used to make articles that are crystal clear, or it may be dyed or pigmented to almost any desired color.

Carousel Washer

Practically any detergent can be used in the Roto-Spray Washing Machine,



new product of the Industrial Washing Machine Corp., New Brunswick, N. J. Designed for operation by one inexperienced worker, it consists essentially of a rotating mesh turntable 2 ft. or larger in diameter, housing, pump, and spray system.

Parts, such as ball bearings, castings, gears, cams, engine blocks, or even non-metallic items, are laid on the turntable, a door is closed, and a quick-action valve turned—that's all. After the work has

A CENTURY PLANT *puts teeth in our War Machine*

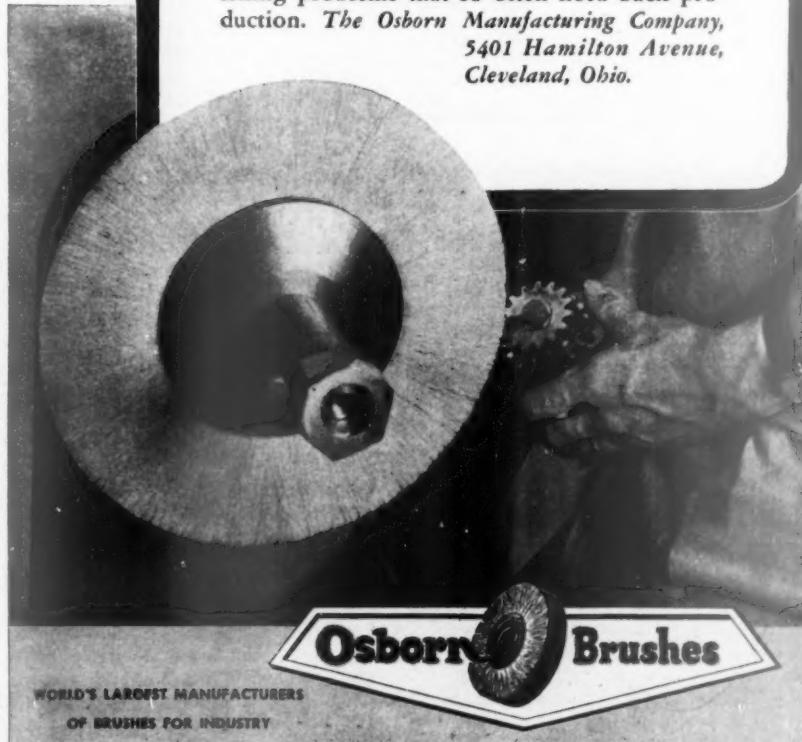
THE gear getting the going-over in the picture will soon be part of a high-powered aircraft engine. And that engine will run smoother, perform better and last longer because this gear and all other fast-moving parts had brief but thorough contact with a century plant.

The tough, hardy fibers of a species of century plant are used in Osborn Fascat Tampico Brushing Wheels. A special chemical treatment enables them to hold abrasives better, cut faster, last longer and prevents "knifing" and "flutter". Because of it they can penetrate every recess and cranny of a part for high-speed mechanisms,

- polishing and blending the surface;
- removing scratches and tool marks;
- rounding corners, forming radii;
- exposing minute defects.

Thus they eliminate the imperfections that frequently become centers of stress concentration, and causes of failure.

Perhaps your own plant faces just such problems. If it does, remember that Osborn Brushing Specialists are on the job in every section of the country, ready and able to help war plants with the burring, cleaning and finishing problems that so often hold back production. *The Osborn Manufacturing Company, 5401 Hamilton Avenue, Cleveland, Ohio.*



Osborn Brushes

WORLD'S LARGEST MANUFACTURERS
OF BRUSHES FOR INDUSTRY



PROTECTION-1943 STYLE

DESIGNERS of war equipment learned a lot from World War I. From the standpoint of protection, there is no comparison between the modern helmet of today and what the doughboys wore in '17.

Packing design, too, has taken great strides in meeting the new requirements of World War II.

The General All-Bound, for instance, is giving maximum safety to a wide range of vital supplies. Made of selected woods, this engineered box is wire stitched and bound. Consequently, it provides the strength of steel on all six surfaces. Assembly is quick and easy... as it comes in one piece. No nails are required. The sure, firm closure gives maximum safety. The Rock Fasteners (loop closures) are opened quickly and easily when the shipment reaches destination. No vital minutes are lost.

Why not see if General Boxes can give your war shipments the extra safety and speed that wartime requirements demand? General Box engineers have solved countless shipping problems for manufacturers in many industries. Their extensive war experience has equipped them to help you meet your government packing specifications. Write today.

For Manufacturers of war products:
General Heavy-Duty Wire-Bound and Nailed Wooden BOXES and CRATES.

Where Availability of Materials Permits: Corrugated BOXES and Wood Cleated Fibreboard CONTAINERS, Generalite and Nailed Strap Beverage Cases for domestic service.

GENERAL BOX COMPANY



GENERAL OFFICES:

502 North Dearborn Street, Chicago, Ill.

DISTRICT OFFICES AND PLANTS:

Brooklyn, Cincinnati, Detroit, E. St. Louis, Kansas City, Louisville, Milwaukee, New Orleans, Sheboygan, Winchendon. Continental Box Company, Inc., Houston, Dallas.

been washed, it can be rinsed with a fresh water spray which drains into the sewer, not into the detergent tank to weaken the solution. The machine illustrated is set up for use with kerosene, hence the explosion-proof wiring and switches and the built-in CO₂ fire protection system.

Blueprint Additive

Engineering executives and architects should be interested in claims made by Wisconsin Pharmacal Co., Milwaukee, for its Hi-Tense Concentrate, a new chemical additive for the water used in developing blueprints: (1) It is not irritating to hands immersed in it, prevents "blueprint rash"; (2) blueprints are sharper, free from brown spots; (3) it neither corrodes tank linings nor stains clothing. Recommended developing solution is one part concentrate to 320 parts water, in other words one pint to about 40 gal.

New Products Briefs

Also reported this week, not only for their interest to certain designated business fields, but also for their possible import in the postwar planning of more or less allied fields and business in general, are the following:

• **Food**—Four artificial spice oils—anise, cassia, cinnamon, and nutmeg for use in "any preparation in which the natural oils were formerly used"—are new formulations of Givaudan-Delawanna, Inc., 330 W. 42nd St., New York. They are said to "replace natural oils pound for pound, being similar in strength, and therefore require no changes in formulas." . . . "D.C. Booster" is offered by Domestic Concentrates, Inc., 10 E. 40th St., New York, for reducing by 50% the amount of cocoa, chocolate, or chocolate liquor required in baked goods, ice cream, chocolate syrup, beverages, or dried powder products "with the retention of the full flavor potency."

• **Woodworking**—Buss Machine Works, Holland, Mich., is ready with a high-speed, inclined-bed Buss Cabinet Surfacier, or planer, in a new 24-in. size. It can be equipped with a patented, quick-acting micrometer control for precision woodwork, as in aircraft parts.

• **Metal-Working**—Practically any engine or bench lathe can be converted to handle many of the operations of a full-fledged turret lathe of similar size with the new six-position Multi-Purpose Tool Post, manufactured by Marco Co., Inc., 511 Monroe St., Wilmington, Del. It is delivered without places drilled for the six tool holders. They are centered and drilled for the lathe on which they are to operate after the post is set up in the slot of the compound rest, a procedure that promises to establish a "dead-accurate center alignment with the lathe spindle."

MARKETING

Gen. Max. Wins

Circuit court upholds OPA by enjoining company against reduction in size of candy bars; case is to be appealed.

Confectionery manufacturers clucked sympathetic tongues last week when the U. S. Circuit Court of Appeals at Kansas City, reversing the decision of a lower court, ordered an injunction against Mars, Inc., restraining it from violating the General Maximum Price Regulation by reducing the weight of its "Milky Way" and other candy bars without reducing prices.

• **Unfortunate Test Case**—That price ceiling violations are rampant in the candy business is generally conceded in the industry. Observers insist black market operators and fly-by-night manufacturers are charging 5¢ for bars half the usual size, sometimes of inferior quality, and are getting away with it because any kind of candy will sell now. Because Mars' 2½-oz. bar is considered a generous 5¢ worth (compared with some bars as small as ½ oz.), probably few in the trade felt that Mars deserved to be the guinea pig in what OPA emphasizes is a test case.

OPA's complaint had been dismissed by the U. S. District Court when it failed to prove its charges of an 11% weight reduction in Mars' candy bars. The court ruled that the 2½% weight reduction it found was so slight that it could have been caused by changes in ingredients necessitated by wartime shortages, as Mars claims. The appellate court, in reversing that decision, didn't specify what percentage of reduction occurred. Gen. Max. provides that prices shall not exceed the highest which prevailed in March, 1942.

• **When Did the Change Come?**—Mars says that a new weight determination for shipping purposes was made with Western Weighing and Inspection Bureau, an independent agency, on Mar. 31, 1942. The bureau found a reduction in the gross weight of a carton of 288 bars of from 55 lb. to 53 lb. Mars claims it had been making and shipping candy at the lower weight since Mar. 31. But since the first invoices showing the new weight were dated Apr. 1, OPA contends that Mars should return to the higher weight.

Seven other candy companies obtained OPA's permission for weight reductions (varying from 10% to 30%) or price increases, or both, before the Nov. 15, 1942, deadline for applications. Mars did not apply, according to com-

any officials, because it could not make the hardship claims required for an adjustment.

Case to BeAppealed—The appellate court decision was hailed by OPA as proof that "the General Maximum Price Regulation is enforceable," and that we have an effective weapon for controlling price increases . . . before they have got out of hand." While Mars prepared this week to take its case to the U.S. Supreme Court, its fellow candy makers—and others in the packaged food business—may well have wondered, "If OPA wins, who's next?"

Liquor is Next

OPA to plug loopholes in the general price freeze with specific ceilings imposed on all alcoholic beverages.

Having provided fairly understandable ceiling prices on food, OPA now wants to do something similar for drinks of the hard sort. Liquor prices lately have been a headache to OPA. What with tremendous consumer demand, the shutdown of distilling, and depletion of supplies, there is no doubt (at least in OPA) that price violations and semi-legal evasions are widespread.

New Brands Emerge—As presently constituted, liquor ceilings are porous. Nobody understands the ceilings, and the incentive to kill off old brands and bring out new ones at higher prices prevails.

Another trend is the result of a loophole in the law. The General Maximum Price Regulation says that if a seller didn't sell a certain article (or a new brand) during the base period, he should price it according to the "similar commodity most nearly like it." The trouble is that the liquor people, according to OPA, have been rather liberal in their definition of the word "similar."

How It's Done—For instance, a well-established \$2 grade of X-brand whisky is labeled Y-brand, cut four points in proof, and then priced \$3. The seller's justification is that alterations in proof and label created a new commodity which is similar to a high-priced Canadian whisky, and that \$3 is a fair price. Except for certain technicalities, OPA has no defense against the price evader and, even in the best of circumstances, is too busy for protracted action.

Under the coming ceilings, the familiar strategy of giving the consumer an easy-to-remember price will be used. Details aren't worked out yet, which means the ceilings aren't due until mid-summer. But here is what OPA plans:

First, for any brand that has remained in existence since March, 1942, wholesale and retail prices will be fixed by margins. These percentage markups will



The Ace Detective Who Never Made an Arrest

YOU'RE standing right in the middle of a great, sprawling, through freight yard at night.

A thousand cars are on the move all around you. And that man there with the lantern . . . he's seeing to it that those thousand cars *keep* moving.

We call him an inspector, but actually he's a detective — a trouble detective. It's his job to discover defects in equipment which, if allowed to pass unnoticed, might result in delays or damage to your property.

Erie has a staff of these inspectors in every yard. When a train is coming in they station themselves at the side of the track and observe the condition of wheels and other parts as the cars go by. After the train stops a more rigid inspection is made.

You may never see these men. You may never have known they were there. But night and day, summer and winter, they're always on guard protecting lives and property and making possible faster delivery of war materials and essential civilian goods.

23,578 FREIGHT TRAINS DAILY

1,408,964 FREIGHT CARS DAILY

25,000,000 NET TONS DAILY

AMERICAN RAILROADS AT WAR

THE RAILROAD OF HELPFUL SERVICE



PAY DAY STAND

Pioneering the newest merchandising trend to combat absenteeism, Newark's Bamberger department store now operates a fast growing chain of branches in nearby war plants. At Otis Elevator's aeronautical division, Harrison, N. J., the nation's first store of its kind keeps workers on the job by providing shopping facilities on company time. Set up by Bamberger—rent-free—in the plant's cafeteria each pay day, the new branch operates during both the noon and the midnight lunch periods which are ex-

tended for the shoppers. It caters mainly to women, offering a wide line of notions and ladies' medium-priced ready-to-wear that ranges from panties to dresses, coats, and hats. One haberdashery counter and a rack of sports wear serve the men. All of Bamberger's charge, delivery, and accommodation services are available, including those of a personal shopper (right). Gross sales are not revealed, but they probably range upward of \$1,250 a week. Also serving a Radio Corp. of America works, Bamberger is planning to open branches in several other nearby plants.



not vary by size of store (as they do in OPA food regulations). Therefore, in any given city, the price of an old brand will be approximately the same in all stores.

Next, on any new brand—meaning any brand born after March, 1942—OPA will slap a flat price at all trade levels. A huge percentage of the current liquor supply will have to be repriced.

- Lower Prices—These measures are supposed to produce lower prices except

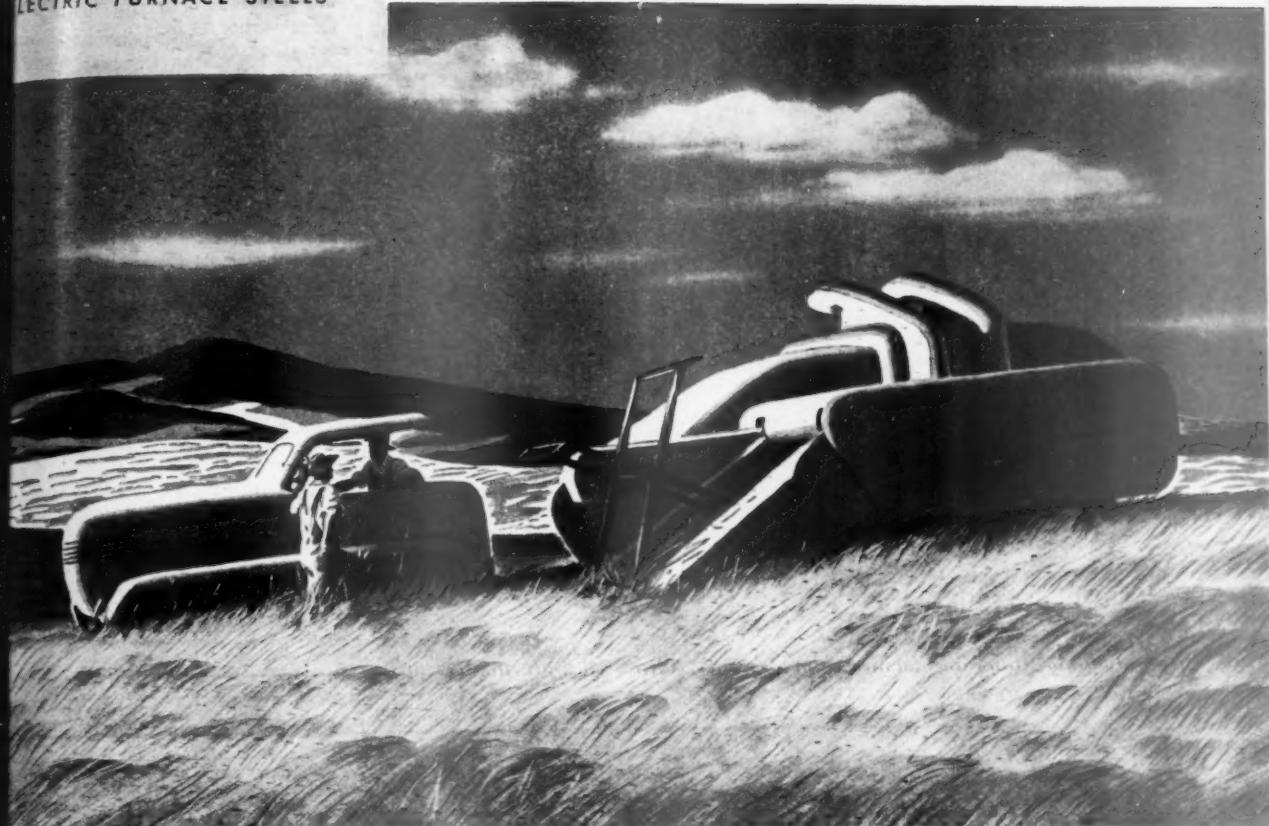


on imported goods. The latter will probably get a boost all around to take care of higher insurance costs.

Another special situation will be the pricing of Cuban and Mexican gins and rums. Wholesalers have been importing these liquors in bulk, bottling them in the U. S., and pricing them according to top-flight English gins and fancy, expensive rums. OPA will haul these prices down by flat ceilings.

When it finishes with distilled spirits, OPA will go to work on wines. This is expected to be even more difficult. For, unlike distilled spirits, wines are still being produced. And since the materials are agricultural commodities whose price is free, OPA has to work around fluctuations in basic costs. As wine makers have been bereft of their tank cars and are incurring appreciable higher transportation costs.

THE LIGHTER, STRONGER, BETTER
THINGS OF TOMORROW WILL
BE BUILT OF
ELECTRIC FURNACE STEELS



More Food For a Better World

Your dinner plate may lack the variety and quantity of food you desire. That's war necessity. But the day approaches when world freedom will permit us to enjoy more food, better food than ever before. Growers and packers are acquiring new "know-how" on the raising and processing of foods. And Republic will be ready with the fine steels for much of the necessary special equipment—but as soon as wartime demands cease.

Republic Electric Furnace Steels—the fine alloy and stainless steels—are proving their superior qualities today in fighting tools on battle fronts as well as in food producing and processing equipment on the home front.

These "targeted" steels—so termed because they invariably score "bullseyes" in meeting exact specifications—gain their advantages because of the rigid control possible only in

the electric furnace. Their consistent adherence to narrow limits of chemistry, insures unusually high uniformity of physical, heat-treating and fabricating properties. This means that they fit perfectly into modern volume production.

Among the many advantages that the food industry finds in Republic Enduro* Stainless Steel are its inertness to fruit, vegetable and meat juices. It is sanitary and easy to keep clean. This "magic" metal does not affect food color, flavor or purity. It is

tough, strong and good-looking—resists corrosion and oxidation.

Republic—leader in the electric furnace field—has increased its capacity for these steels more than 700%. In the world of tomorrow, they will resume their peacetime ability—to help designers, engineers and manufacturers produce *better* things to work with and to live with—in industry, on the farm, in the home. Republic Steel Corporation, General Offices—Cleveland, Ohio. Export Department: Chrysler Building, New York, N. Y.

* Reg. U. S. Pat. Off.

REPUBLIC ELECTRIC FURNACE STEELS

alloy...stainless..."aircraft quality"

—for vital working and structural parts in the automotive, aviation, farm implement, machine tool, petroleum, railroad, chem-



ical, food processing, marine, textile, refrigeration, heavy machinery, electrical, transit and general manufacturing industries.

NEW TYPE Removable STICKER



SPEEDS WAR PRODUCTION APPLIED WITHOUT MOIST- ENING—EASILY PEELED OFF

Simply press on—no moisture necessary—adheres to any smooth surface—never pops off—yet easily peeled off in one piece without leaving a mark. Won't pull off like string tags, fall off like wet stickers, rub off like chalk marks, pull out like pins.

These amazing new Kum-Kleen Dry Stickers are speeding production, eliminating errors, providing greater economy in dozens of ways in almost every major war plant. Available in assorted sizes, shapes and colors—blank or printed.

Write today for industrial bulletin BW-5 and free samples to make your own on-the-job-test.



Kum-Kleen
STICKERS

AVERY ADHESIVES

451 E. 3rd ST., LOS ANGELES, CALIF.
In Canada: Enterprise Sales & Distributors, Toronto

Vacation at Home

Furniture for back-yard
holiday scarce, even in wooden
substitutes, with prospect that
demand will far outrun supply.

Time was when a summer at home meant that the ill-fated family which couldn't get to the mountains or the shore had to struggle along with the facilities of the country club. Now that the first Victory garden sprouts are appearing on ploughed fairways, at-home vacationists are seeing what can be done about their back yards.

- **Demand Isn't Prosperity**—This, plus the boom which began with tire and gasoline rationing in the East last year, made dealers in porch and lawn furniture see 1943 as a banner year. But by the first of the year, they learned once more the familiar wartime lesson that consumer demand alone does not make prosperity. At the January show in Chicago's Furniture Mart, summer furniture wasn't featured as usual, and buyers found promises for delivery pretty sketchy.

Consequently, retailers are ransacking warehouses for every last piece of old stock to supplement shipments of 1943 models. But business won't be anything like last year's. One of New York's biggest medium-price department stores reports that, with what it has to sell, sales won't reach more than 25% of last season's volume.

- **Metal Furniture Blocked**—WPB stopped production of metal furniture, which represented by far the greatest volume (possibly 80% of total sales)

a year ago. Skilled metal workers used to make the wrought-iron type pieces now turn out such essential equipment as Jacob's ladders for the sideships, and about 300,000 tons of iron and steel are saved for fighting gear. Thus manufacturers are too busy with war work to replace their usual line with wooden substitutes. Major exception is the porch glider now available in a war model utilizing wood to replace both springs and metal frames.

Producers of wooden furniture still making outdoor lines when they get lumber. Birch, maple, chestnut, oak are favorites, and the industry demands the same strong, straight pieces everybody else is scrambling for. Single knot threatens breakage in garden furniture just as it does in the humble broomstick.

- **Rebirth of Wicker**—Use of sturdy rattan for parachute rings has cut off production of rustic furniture once made from stems of this tough member of the palm family. The inner fiber is still being used, however, for reed furniture—what the trade calls basket design. But most reed furniture—a wartime survival of the wicker fashionable in the 'twenties—is made from home-grown pulp fiber. Paper made from pulp corded by high-speed machinery and woven over lightweight wood frames produce durable, hard-textured porch and lawn furnishings.

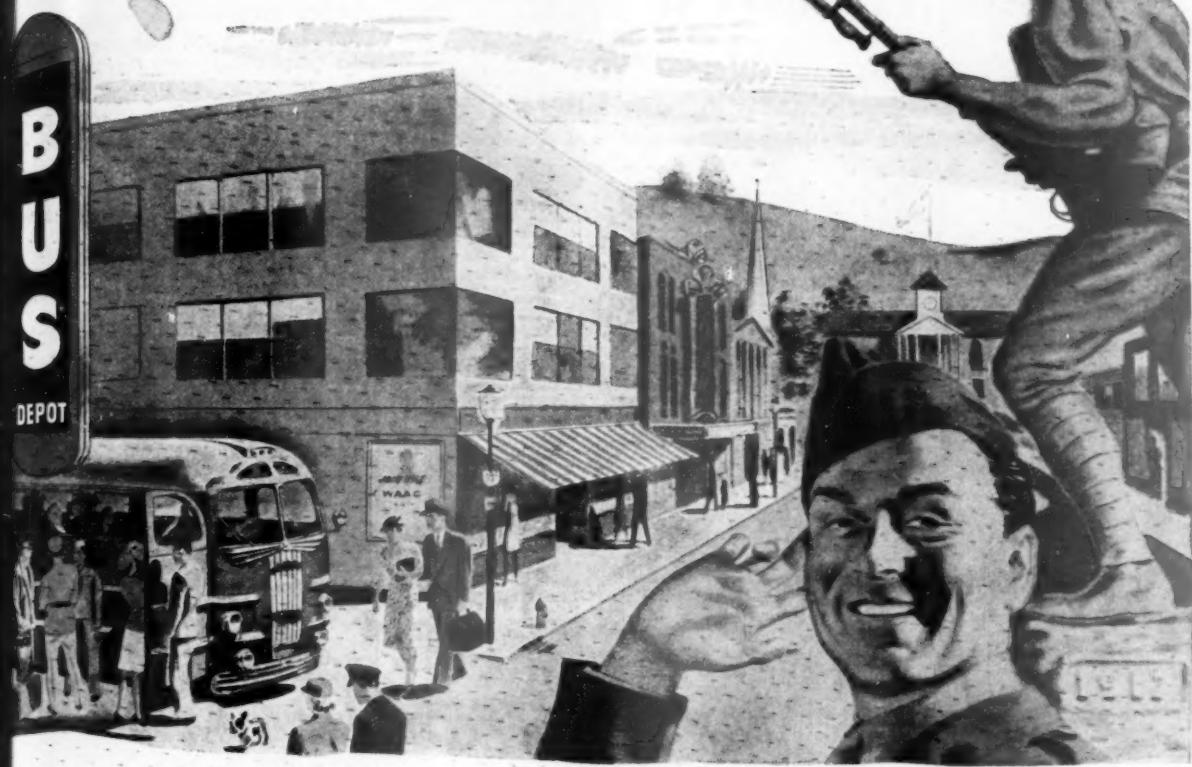
Teacarts, coffee tables, movabletees, and garden chaise longues will be around back yards on wooden wheels this year since both rubber and steel are out.

- **No Canvas or Rubber**—Upholstery once filled with kapok, or at worst cotton felt, is now ambiguously labeled, containing "shredded clippings." W



With metal gone to war, garden furniture this season will be largely wood—when manufacturers can get it. Catch is that unblemished hardwoods, needed for strong furniture, are also needed for the making of war goods.

Main Street goes to war!



This once peaceful town is fighting mad. And it's putting in the kind of punches that win! Doc Baxter's son has won the Distinguished Service Cross . . . George Jensen has downed his first Jap plane . . . Sally Iverson is off to join the Waacs . . . Walt Willis is working in a bomber plant. Everybody's in it . . . fighting, working, buying War Bonds.

And that smiling, young soldier on his way to the bus station . . . that's Jimmy Jones!

With his girl's picture tucked in his pocket and some of Ma's fanciest home cooking under his belt, Jimmy is heading back from furlough. He is going back the same way he came . . . the way that "joined him up." Like the others from his town so much in the war, he depends on buses to get him where he's going.

And every mile he travels by intercity bus, Jimmy sees the power of America moving into the war. For

to all the men in our training camps, to 70 million Americans who live in small towns and on farms, and to millions of others everywhere, bus service is irreplaceable. It's the transportation they know and count on.

And the bus lines will never let them down! Night and day, these highway Task Forces roll between the thousands of small town Main Streets and the big city Broadways . . . moving manpower to war plants and shipyards . . . carrying the majority of inductees to induction centers . . . serving our military bases

and training camps . . . bringing help to farms along the highways . . . meeting the ever growing needs for essential military and civilian travel...684 million passengers in 1942!

This flow of manpower by highway must not be slackened. Bus transportation must be kept strong and equal to its tasks. And to the utmost limits of available equipment and the carrying capacity permitted by present speeds, the bus lines are concentrating on their wartime job . . . keeping 330 thousand miles of highway at work for victory!

* * *

Many thanks to you, our passengers, for accepting unavoidable inconveniences with a smile, for planning trips in advance, avoiding week-end and other peak travel periods, and taking as little baggage as possible. Your cooperation is helping us immensely in our wartime job.

MOTOR BUS LINES OF AMERICA

NATIONAL ASSOCIATION OF MOTOR BUS OPERATORS, WASHINGTON, D. C.

GREEN HANDS can produce Top Quality!



Shortages of trained workers no longer need mean any let-down in the quality of manufactured products. Warplants now are demonstrating that new high standards can be rigidly maintained through systematic application of Foxboro Measurement and Control Instruments.

With these production aids, exacting operations are reduced to routine . . . even "green hands" can produce surely and accurately. Automatically, workers are supplied with exact

measurements to guide them . . . graphic records are provided whenever needed . . . manual control is often completely replaced!

For post-war planning, take a tip from war industries. Learn how Foxboro Instruments can assure higher uniformity and quality in any process requiring critical temperatures, pressures or flow rates. The Foxboro Company, 120 Neponset Avenue, Foxboro, Mass., U. S. A. Branches in principal cities of U.S. and Canada.



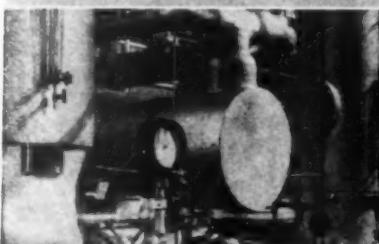
"For outstanding production", The Foxboro Company has been awarded the Army-Navy "E" Pennant.

Plant-wide Foxboro instrumentation insures rigid quality maintenance in aviation gasoline and synthetic rubber production.

FOXBORO
Reg. U. S. Pat. Off.

MEASUREMENT AND CONTROL SYSTEMS

Automatic control of dye-roll pressure by Foxboro Pneumatic Loading Systems like this eliminates uneven dyeing of textiles.



has left no canvas or rubberized materials for brightening up the nation's back yards, but manufacturers get limited quantities of sailcloth and some water-repellent fabrics for pillows, holsters, and beach umbrellas.

Salvation of the backyard vacationer who can't find canvas substitutes to replace worn or faded umbrellas and curtains is a miracle paint called Setfast. Last year the product was introduced as an awning paint. This season retailers sell it (at \$5 a gallon, 50¢ a pint) for rejuvenating garden fabrics—and even fiber rugs. Biggest selling point is that Setfast renders fabrics both water-repellent and mildew proof, but customers are susceptible too to the advantages of a paint that sinks in like a dye and leaves no surface coating to stiffen and crack.

Manhattan's de luxe hardware emporium, Hammacher Schlemmer & Co. Inc., features an ingenious asbestos barbecue burner to replace prohibited steel models. But barbecue burners which were best sellers last year became a dud on the market with meat rationing and the beef shortage. Dealers point out a vain that chicken can be barbecue

Smoky East

Figures on cigarette tax receipts show that the populous states smoke the most; size of levy affects sales.

Antitobacco league interests were surprised this month to note that traditionally puritanic New England presents the biggest challenge to an abstinent crusade.

Connecticut's per capita consumption was nearly 2,000 cigarettes between March, 1942, and February, 1943; Massachusetts, Rhode Island, and Maine, the average was 1,668 or more according to a study by the Federation of Tax Administrators which the Public Administration Clearing House has made public.

• Lowest in Arkansas—New York and Washington were the next high states according to the Federation's study based on tax collections in 17 of the 28 states that levy this excise. (The other eleven do not report sales.) Lowest for the twelve-month period were the highest cigarette-tax states, Oklahoma and Arkansas, with consumption of 711 and 519, respectively.

Except for Texas, where per capita consumption is 1,100, southern states smoke least (partly because they roll more of their own), whereas midwestern consumption represents more nearly an average.

The report attributes heavy smoking in New York and New England to

urbanism, preference for cigarettes over other forms of tobacco, and higher per capita income.

• **How Much Is the Tax Felt?**—Three of the four states with high tax rates have the lowest per capita consumption of cigarettes—the fourth is that exception to all rules, Texas. But the fact that a low tax rate is not the only cause of low consumption is shown by the figures:

State	Tax per Package	Per Capita Consumption
Connecticut	2¢	1,976
Massachusetts	2¢	1,956
Rhode Island	2¢	1,830
New York	2¢	1,826
Washington	2¢	1,713
Maine	2¢	1,668
Illinois	2¢	1,545
Ohio	2¢	1,516
Wisconsin	2¢	1,217
Utah	2¢	1,009
Iowa	2¢	977
Kansas	2¢	976
Kentucky	2¢	836
Texas	3¢	1,100
South Dakota	3¢	834
Oklahoma	5¢	719
Arkansas	5¢	519

Sears Goes South

Mail order house opens buying office in Atlanta which will buy local manufactures for catalog and store sale.

Following the pattern of its Pacific Coast operations and its top management's oft-stated belief that the South is on its way to an ever greater economic importance, Sears, Roebuck & Co. has opened at Atlanta a merchandise buying office. Sole major difference between the Los Angeles and Atlanta functions is that high freight rates and small size of most local factories have limited the Coast office to buying merchandise for distribution almost solely through Sears' far western stores and catalog houses. Atlanta is expected to buy southern-made goods for national distribution through stores and by mail.

• **Measurement of Growth**—Statistics compiled while this move was under consideration show how southern manufacture of consumer goods has grown in importance. Sears' total purchases for 1929 in the southern states equaled 33% of the firm's sales in the territory; for 1942, they equaled sales in the territory—and sales had meanwhile greatly increased.

Big lesson Sears learned from its Los Angeles buying operation was that consumers' regional demands differ even more than its merchandisers had believed. These differences seem less the result of climatic and occupational characteristics than of tastes developed through the efforts of local manufac-

How much Air...

to keep the "stagers" out of raft-making?



Plant air that made workers go AWOL? Yes! and it threatened to sabotage production of death-cheating rubber life-rafts for America's air force.

Step into the room where these special rubber boats are processed and you'll find that a dangerous solvent is evaporated and released into the air. Even small concentrations of this vapor cause workers to reel and stagger as though drunk. To make matters worse, this solvent carries the constant threat of explosion.

What to do? Knuckle under to this production bottleneck and forget about the planes that are waiting for these rafts? Or ask Sturtevant to "Put Air to Work?"

Now, huge Sturtevant Fans are on the job . . . blasting a hurricane of fresh, tempered air into the room. 2000 tons of it every hour...enough to replace every cubic foot of air every two minutes!

RESULTS: Vapors whisked away before any worker can inhale them . . . production kept at top-notch. And because dry air encourages a static spark, this Sturtevant System keeps the air "moist" enough (engineers call it 50% relative humidity) to eliminate the danger of explosion.

Sturtevant has licked this problem for leading plants in America . . . to speed the production of life-rafts, barrage balloons, self-sealing gas tanks and countless other victory-vital rubber products.

HOW MUCH AIR TO MAKE YOUR POST-WAR PRODUCT BEHAVE?

After the war, all America will benefit from the lessons we are learning today. AIR that is engineered—to ventilate, to heat, to convey, to control dust and fumes or burn fuel more efficiently—will make the difference between profit and loss in many a plant. Just where ENGINEERED AIR will fit into your problem, no one can say. But Sturtevant's work of yesterday and today will be tremendously helpful in finding the answer.

B. F. STURTEVANT COMPANY
Hyde Park Boston, Mass.

Sturtevant
Puts Air to Work

Stores Pool Training of Help

In the nation's race for manpower, retailers have consistently come in close to the tail end. Unable to compete with the authority of the draft board or the wage scale of war industry, department stores began appealing to leisure class housewives—"the kind of people who are our customers"—before the Christmas rush last winter (BW—Oct. 3 '42, p68). But even nostalgic display ads asking women to remember when they wanted to play store failed to solve the retail labor problem.

• **Group Training**—Realizing they were up against a crisis which could only be solved by cooperation, members of the Houston (Tex.) Retail Merchants Assn. have pioneered a group hiring and training program.

Houston's Institute of Merchandising now conducts a six-day (total twelve hours) training course to fill in labor gaps for grocery stores, department stores, specialty shops, and the local branch of Sears, Roebuck & Co. The first training period last fall drained off most of the available married women, recruits for spring training coming mostly from public high schools.

• **Federal Assistance**—The U. S. Office of Education furnishes training personnel as it formerly did for courses in beauty culture, welding, and craftsmanship sponsored through local high schools.

turers whose products may never get beyond a few hundred miles from their plants. Ferreting out these local variations and catering to them have proved highly successful methods of boosting business.

• **A Regional Item**—For example, there is the California-made gas stove with solid top and built-in griddle, which has long-established acceptance among Coast housewives but is practically unknown elsewhere. When Sears' buyers at Los Angeles installed this item in retail stocks and pages of its Coast catalog editions, gas stove volume got a shot in the arm. Though the patent situation would not prevent adoption of the same general design in other territories, eastern stove makers have never bothered to pick up the idea as their customers show no interest.

Likewise, local savvy on timing has proved helpful. Items that northern outlets handle in March and April, and which therefore fit nicely in their spring catalogs, may belong in Coast and southern fall catalogs because seasons are earlier or because demand is year-round. Examples: shrubbery, window screens, garden tools.

As soon as the war is over, Sears

Personnel managers of all Houston stores interview prospective employees during registration for courses, but placement waits until the course is finished. Of the 400 who completed the course in October, 300 were grabbed up by the local retailers.

WANTED!
500
WOMEN
TO
TRAIN
FOR
**SALES WORK in
LOCAL STORES**

We can't all fight... We can't all build ships... **BUT WE CAN ALL SERVE**

By local merchants in filling full-time or part-time positions on their sales staffs.

REGISTRATION RECEIVED DAILY THROUGH FRIDAY, MAY 14, FROM 2 TO 5 PM. NO FEE OR MEMBERSHIP FEE OF THE RETAIL MERCHANTS ASSOCIATION. EACH REGISTRATION WILL BE INTERVIEWED BY ONE OF THE INSTITUTE'S COORDINATORS FROM THE RETAIL MERCHANTS ASSOCIATION. A DOWNGLOADMENT FEE OF \$1.50 PAYABLE TO THE INSTITUTE. THE INSTITUTE OF MERCHANDISING, COVERS THE ENTIRE COST OF THE 12-HOUR COURSE.

ENROLL NOW!
GIVE YOUR FULL TIME OR PART TIME TO YOUR WAR EFFORT AND ADD TO YOUR OWN INCOME AS WELL.

Houston Institute of Merchandising
through co-operation of the
RETAIL MERCHANTS ASSOCIATION of HOUSTON

executives expect a tremendous rise in consumer goods production in the South as conversion of munitions factories gets going. Big assignment of the Atlanta merchandise men is to find ways to route the best of these products into Sears stores and mail order houses.

RED SEAL FOR ALL

The recurrent problem of what does and what does not constitute a valid trademark received further definition last week when two complaints filed by the RCA Manufacturing Co., Inc., charging trademark infringement and unfair competition as a result of the use of Victor phonograph records' familiar red label, were dismissed in the U. S. District Court in New York.

Actions sought to restrain Decca Records, Inc., Decca Distributing Corp., Columbia Recording Corp., Columbia Phonograph Co., Inc., and Times Appliance Corp., from using either red labels or the phrase "red seal."

In ruling Victor's trademark void, the court declared the red seal far too broad a zone for potential exclusion of others under common law or trademark law.

Ruling that Decca and Columbia

were not guilty of unfair competition, the court pointed out that records as "instruments of esthetic delight" are sold not by color but by sound—from trial auditions or the record catalog "with which the modern world seems to be flooded."

Summer Shift

Philadelphia stores drop staggered hours for season to give employees a break and head off wave of resignations.

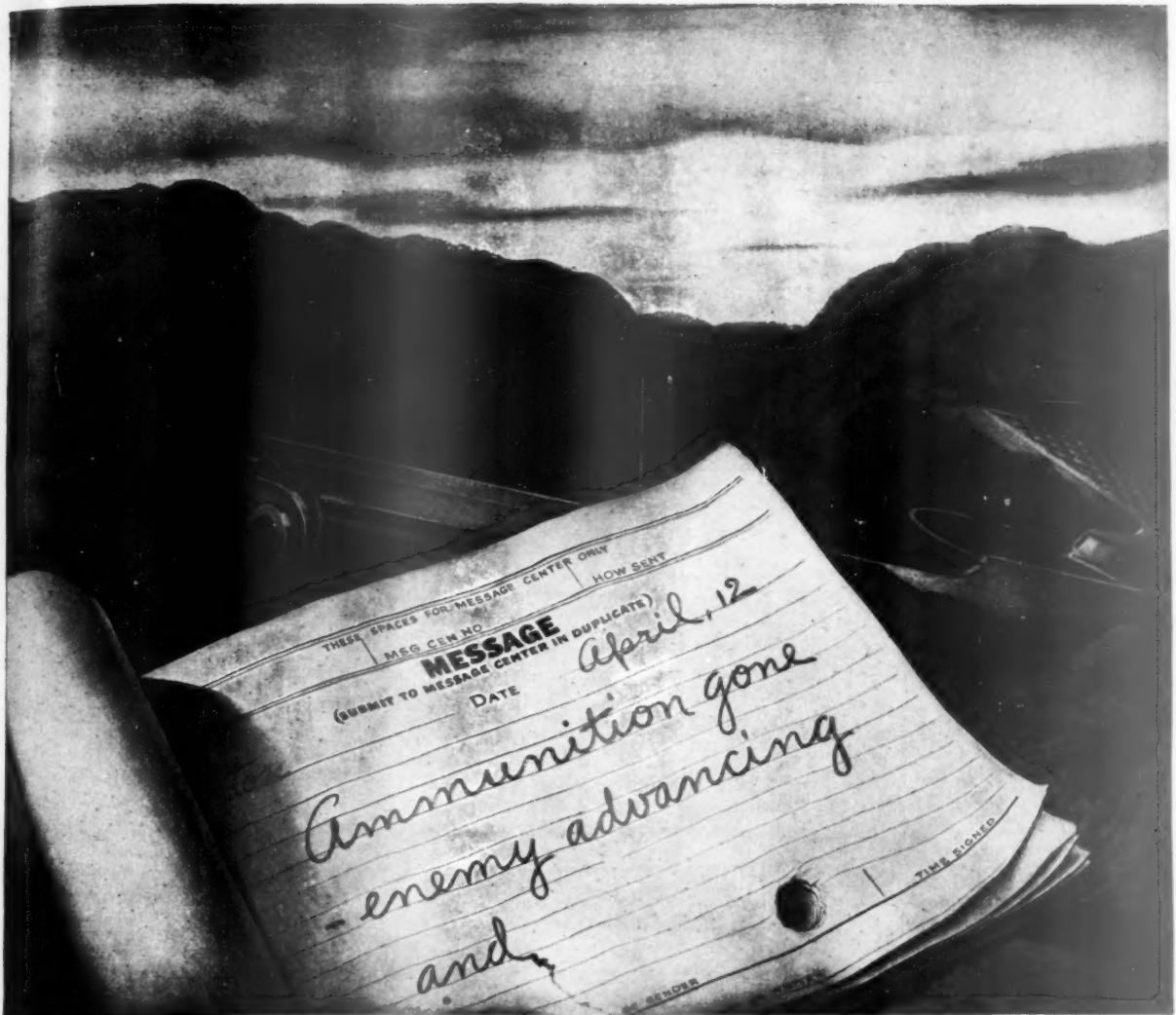
Although staggered hours for department stores and specialty shops helped to open Philadelphia's public transportation bottleneck and at the same time stimulated retail sales, the plan adopted eight months ago is being abandoned for the summer months. The reason: Personnel managers discovered that many employees disliked the prospect of getting home an hour later during hot weather, and a decided increase in resignations proved what they intended to do about it.

• **Feared Transit Load**—An appeal to the local war transportation committee for permission to revert to former schedules was denied, because it was feared that Philadelphia Transportation Co., which handles 80% of the city's mass transportation, would be overwhelmed by the extra load at peak hours.

But when Robert A. Mitchell, transit director, learned that the company normally experiences lighter loads during vacation periods, he agreed to permit stores operating on 10 a.m. to 6 p.m. schedules to move them forward a half hour until June 12, when they can shift to 9 a.m. to 5 p.m. This concession was made with the provision that stores agree to return to staggering by Sept. 11, or sooner, if the war transportation committee finds it necessary.

• **Wanamaker Took Lead**—First to announce a change in hours were the John Wanamaker stores, which are lopping four hours a week off operating time. Between July 6 and Labor Day, they will open at 10 a.m. as usual and close at 5 p.m. (instead of 6 p.m.) every day except Wednesday and Friday when the hours of noon to 9 p.m. will be continued.

Sixty-four cities attempted the staggered hour plan, but Philadelphia—where 90,000 are affected by it—is one of the few where it proved a success. Before it was introduced, the transit company's facilities were operating at 115% of capacity at peak hours, with the company carrying 3,300,000 passengers daily, as compared with 2,000,000 a day in January, 1940, described as a normal month. The peak load dropped over 15% under staggering.



Unfinished Story of a SLOW DOWN

IF YOU give a man the bullet he needs ten minutes too late, you can bank on the fact that he'll have very little use for it.

That is why, if we are honest with ourselves and ask ourselves what we can do to help win this war, there is but one answer: "I can help by providing some soldier the tools to fight with... and by providing enough in time."

It is only by preventing slow downs in production that we can guarantee the man at the front a fighting chance. A slow down, however brief, may deny some man his chance to see his home again.

There are some slow downs we can avoid, simply by careful foresight. One of the commonest, yet easiest to prevent, is the slow down caused by the

faulty operation of valves. The most effective way to do it is to prevent valve trouble before it starts.

It cannot be repeated too often, that valves should have regular systematic inspection; worn parts should be replaced before the valve has a chance to destroy itself; new valves should be selected and installed by experts. New men should be thoroughly trained in care and maintenance.

Jenkins Engineers are ready to assist any management in developing a practical program of effective valve conservation. To obtain this cooperation, send details of your valve problems.

Reprints of this advertisement are available for display in your plant.

Jenkins Bros., 80 White Street, New York, N. Y.; Bridgeport, Conn.; Atlanta, Ga.; Boston, Mass.; Philadelphia, Pa.; Chicago, Ill.; Jenkins Bros., Ltd., Montreal; London.



JENKINS VALVES SINCE 1864

For every industrial, engineering, marine and power plant service... in Bronze, Iron, Cast Steel and Corrosion-Resisting Alloys... 125 to 600 lbs. pressure.



"I am a machinist..."

SHE writes to her husband somewhere in the Pacific—proud that she is doing a man's work.

"I am now a real machinist. My job is machining heavy parts for airplanes. I have a little electric 'Budgit' hoist that does the lifting for me—so I never get tired. Someway I feel as if I were helping you as well as the country . . ."

With 'Budgit' hoists to lift heavy parts, women (and older men) are enabled to work in production, assembly and inspection lines and handle parts up to 2000 pounds in weight.

'Budgit' hoists avoid all danger of strain and rupture and free the workers' minds and muscles so that energy is devoted to producing.

Thousands of 'Budgit' hoists are in use in war industries.

With the proper priority, we can assure early shipment of all sizes.

'Budgit' Hoists are portable, electric hoists with lifting capacities of 250, 500, 1000 and 2000 lbs. They are priced from \$119 up. Hang up, plug in, use. For information, write for Bulletin 356.



'BUDGIT' Hoists

MANNING, MAXWELL & MOORE, INC.
MUSKEGON, MICHIGAN

Builders of 'Shaw-Box' Cranes, 'Budgit' and 'Load lifter' Hoists and other lifting specialties. Makers of Ashcroft Gauges, Hancock Valves, Consolidated Safety and Relief Valves and 'American' Industrial Instruments.

THE WAR—AND BUSINESS ABROAD

Row in the Back Room

Everything is serene on the surface, thanks to timely intervention by Washington and London, but the Russians and Poles still are slugging it out behind closed doors.

The world spotlight this week cast divergent beams on the Roosevelt-Churchill meeting in Washington, the first of the great pre-peace conferences at Hot Springs (page 51), the progressing offensive against the Japanese in the Aleutians, and the steady aerial pounding that United Nations planes are continuing against Axis-held Europe. But, unknown to more than a few, a behind-the-scenes diplomatic battle is raging which must terminate in one of the most significant pre-peace settlements or in a serious rupture of the United Nations front.

• **Seething Underneath**—Though Washington and London have firmly quashed the public squabbling between the Soviet Union and the Polish government exiled in London, the battle between the two countries is continuing behind closed doors, with Moscow insisting that the United Nations come to some agreement on the political and territorial principles involved.

The scope and importance of the

problem is emphasized by the facts that Churchill and Roosevelt devoted an important part of this week's conference to a discussion of the issue; Dr. Eduard Benes, president of Czechoslovakia, came to this country especially to help draw up a plan of action and will proceed to Moscow soon to further negotiations with the Soviet Union; and Roosevelt has given it an important place on the agenda of the meeting with Stalin now being arranged.

• **Origin in Peace Terms**—The Polish-Soviet controversy had its beginnings in the peace settlements after the World War when the new Polish state was given important slices of Russian territory that the infant Bolshevik government was too weak, militarily, to protest.

During the 20 years between the two wars, this early antagonism was strengthened by the general fear of and antipathy to the Soviet system of government and, after Hitler came into power in Germany, by a carefully planned Nazi bid for the support of the Polish upper



SUPPLIES FOR TURKEY

One of the last shiploads of lend-lease tanks and munitions to arrive in Turkey from the United States by the long route around Africa unloads in

Alexandretta harbor. With the defeat of the Axis in Tunisia, United Nations convoys will soon move through the Mediterranean again, cutting by two-thirds the distance to bases in the Near and Middle East.

ces who naturally were the strongest
ponents of communism.

London's Guarantee—When, in the
ing of 1939, it was obvious that Hitler
would soon start his drive for Lebensraum, Warsaw appealed to England for
protection. London replied with a guarantee
to come to the aid of Poland, Russia, and Greece if they were attacked.
suggested belatedly that Poland and
Soviet Union try to come to some
mutual aid arrangement. Moscow welcomed
the plan but Warsaw flatly refused to allow Soviet troops in Polish
territory, and nothing was done. In
August, 1939, Moscow made its nonaggression deal with Germany, and Hitler attacked Poland a few days later.

One part of the Soviet-German deal
provided that Russia occupy the part
of Poland that had been snatched from
the Bolsheviks. The Russians held this
territory until attacked by the Nazis in
June, 1941.

Buried Hatchet—In July, 1941, Moscow
restored diplomatic relations with
the Polish government in London, de
clared void the Soviet-German pact of
1939 splitting Polish territory between
Moscow and Berlin, and drew up a plan
for the creation of a Polish army to be
trained and trained in Soviet territory.
It was early in 1942 when Soviet-Polish
diplomatic relations began to sour.
First move to make Moscow nervous
was the Polish-Czechoslovak agreement
Jan. 23 drawing up a plan for the future
confederation of Poland and Czechoslovakia.
To most of the world this looked like a laudable move toward a
postwar federation of European states.
To Moscow, it looked like the reestablishment of the old cordon sanitaire
against the Soviet Union.

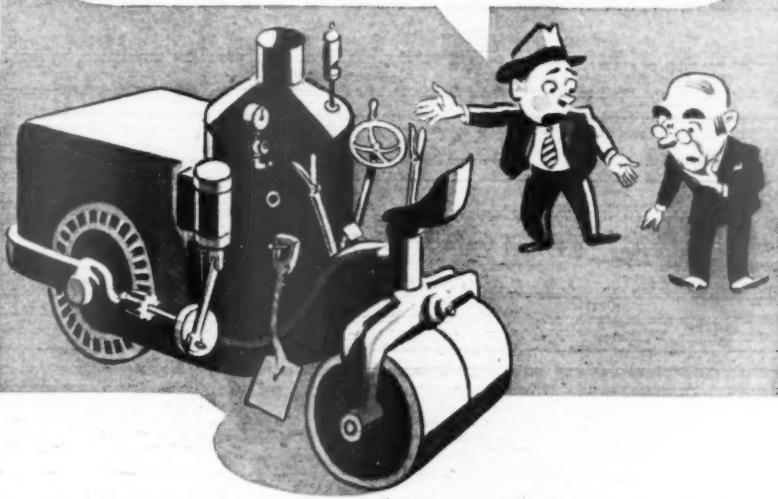
Shun Russian Front—A few months
later, when Polish military officials re
sisted to send their newly trained troops
to battle along the Russian front despite
promises in the original deal with
the Soviet Union, Moscow made it plain
that Russia could hardly continue to
support them, and the Poles asked to be
transferred to the Middle East. Moscow
agreed and helped transport the troops
and their families, but relations were
seriously strained.

It was not until 1943, however, that
tensions came to a head. Angered because
Polish authorities refused to allow
their Soviet-trained troops to fight with
the Russians against the Germans, Russia
demanded the allegiance of all the
inhabitants of eastern Poland. The exiled
Poles immediately protested that
Moscow was refusing to recognize the
frontiers of Sept. 1, 1939.

Imperialism Is Charged—On Mar. 2,
Moscow replied that Poland had imperialist
aims and was misusing the Atlantic Charter to prevent the reunion
of Russians living in Poland with their
"blood brothers" in the U.S.S.R.

The Germans then publicly accused

"YEAH, BOSS--BUT WHAT'S NEW ABOUT IT BESIDES THE PAINT?"



DUSTING off the old product — "doling" it up — won't satisfy either your salesmen or your customers. They'll demand something new in performance, too, after the war ... With very little trouble — you can make your product *really new* — by using Blackhawk Hydraulic Controls wherever actuating power is needed.

Your sales force and customers will give you a vote of thanks (and orders) when smooth, safe,

accurate, hydraulic power replaces obsolete actuating methods. Blackhawk's present line of Hydraulic Equipment is big and far advanced. There may be a unit ready *now* to give your product a dynamic selling feature.

For information on Hydraulic Controls for your future product designs — or for your present Hydraulic applications — write Blackhawk Mfg. Company, 5300 West Rogers Street, Milwaukee, Wisconsin.



Blackhawk Hydraulics Provide These Advantages ...

Newness for your product ... Efficient, smooth, sure, accurate power with finger tip control ... Safer for men and machines ... Adaptable to existing equipment ... Proven by 17 years of dependable service ... A name accepted and recognized in leading equipment buyers everywhere ... Service Stations at key points all over the world.

Blackhawk Hydraulics Are Standard Equipment on ...

Snowplows ... Road Graders and Bulldozers ... Farm Equipment ... Railroad Equipment ... Amphibian Tanks ... Industrial Lift Trucks ... Power Moving Machines ... Material Handling Equipment ... Pavers ... Mining Equipment ... Tunnel Construction Equipment ... Dump Bodies ... Cutters ... Jigs and Fixtures.

BLACKHAWK

Hydraulics



These Standard Blackhawk Products Are Sold Through Leading Automotive and Industrial Distributors



Enlarged reproduction free on request.

Wire to the Axis

Do you know that wire is America's most versatile war weapon? That it helps to make, and serves vitally in every plane, tank, ship and gun? And in almost everything our fighting forces use or wear or fight with? Even food and cigarettes are processed on modern metal conveyor belts made of Wissco wire.

Wire in its various kinds and shapes is one of the most indispensable, widely used of all materials in war.

In peace you'll find it hundreds of places in an automobile or in your 194-model family 'plane!

Quality and dependability in wire have become a Wickwire Spencer tradition, after 122 years of pioneering many of the basic developments in this highly specialized material.

If wire or wire products can help in your war production, put your problem up to experts.

COPYRIGHT 1943

**WICKWIRE SPENCER
STEEL COMPANY**

300 FIFTH AVENUE

NEW YORK, N. Y.



FAMOUS FOR QUALITY IN WIRE, WIRE ROPE, SPRINGS, METAL CONVEYOR BELTS, INDUSTRIAL WIRE CLOTH, POULTRY NETTING, HARDWARE CLOTH, INSECT SCREEN CLOTH, ELECTRICALLY WELDED FABRIC FOR CONCRETE

the Russians of murdering the Polish officers found buried at Smolensk. Polish officials joined in the protest. Then Moscow suspended diplomatic relations with the Poles.

• **Russian Influence**—There is no doubt in the minds of officials who know eastern Europe that, with Germany defeated, Russia will be a major influence—both economically and politically—in the countries along its western border.

It is not clear, however, that Britain and the United States are willing to back a Russian claim to territory either in Poland or in the little Baltic states. Actually, England has bluntly told the Polish government that it will have a part in a controversy with the Soviet Union over territorial claims.

• **Would Drop Federation**—And Benes, who regards Soviet collaboration with the Allies as the cornerstone of postwar Europe, has offered to abandon the plan for a Czech-Polish federation if it offends the Russians. This is to be expected since Moscow has said that it will recognize Czechoslovakia's pre-Munich frontiers.

Old prejudices, in both Poland and Russia, are responsible for the present Soviet-Polish break. Moscow obviously believes that the old "government of the colonels" is in control of the exile government in London and that it will further all plans for Polish-Soviet collaboration.

And the Poles, conscious of Russia's tremendous new power and prestige, have allowed themselves to get panic over their place in the postwar world.

• **The Benes Program**—Benes provided the best available clew to probe United Nations action when he outlined his program to the press a few months ago. It included:

(1) A plan to reestablish the independent nations of central and eastern Europe;

(2) An agreement on their provisional frontiers, to be reached by the United Nations in advance of an armistice;

(3) Recognition of the need for a two- or three-year armistice period during which "the final form of things" can be arranged by ultimate settlement at the peace conference;

(4) Wholesale exchanges of minor populations to end permanently the problem which proved so powerful a weapon in Hitler's propaganda armory.

COTTON TO SPAIN

Small in dollar volume for international trade but believed by exporters to be a straw in the trade winds with Franco's peacetime Spain are the 26,000 bales of cotton sold by Houston trade to Spanish interests for export. Cotton men and textile men advance the opinion that the clearing up of the African war picture is responsible for Spain's coming to America again for cotton for its textile mills, which ordinarily supply much of the cotton goods demand in North Africa and Tunisia.

32 BILLION PARTS WORKING HARDER THAN EVER BEFORE

Maybe this will give you an idea of what the railroads are up against —

There are 32 billion parts in all the cars and locomotives now in service — 32 billion parts that have to work together and hold together to keep America's wartime traffic rolling.

And no matter how much we need new equipment — the hard fact is that all the material we can get today cannot add up to much against such a total.

The job confronting the railroads is the same confronting most Americans — the job of doing the best we humanly possible to do with what we have and can get.

A fortunate thing, under the circumstances, that American railroads worked out in peacetime the teamwork they're putting to such good use today. Any freight car in America can be repaired in any

railroad shop in America — wherever it happens to be — without the delay of getting back to "home base."

RIGHT OF WAY FOR THE U.S.A.

Do you know that the cars which the railroads deliver every day just to military camps and plants would make a freight train 150 miles long?

And that to handle troop movements takes more than 200 special trains a day?

This is something to remember when trains are held up to make way for victory freight, or cars are crowded, or reservations hard to get.

This is only one example of the cooperation among the nation's railroads, and of the broader cooperation among railroads, shippers and the government — all working together and pulling together to handle the biggest transportation job the world has ever seen.





DUST... Foreign matter of every kind is kept out of delicate mechanisms, ball-bearings, etc. by FELT washers of proper density and thickness. Nothing filters and shields like FELT, which is why great air-conditioning units depend on this readily available material.

DIE-CUTTING... FELT is die-cut in intricate shapes to amazingly close tolerances, and used in practically every industry. Great in its own right, FELT is replacing rubber, cork, leather and other critical products.

DENSITY... pre-determined and controlled . . . Converts to FELT learn with surprise that it can be as soft and pliable as a kitten's ear, as hard and unyielding as seasoned maple, or in a vast range of densities in between.

DISTRIBUTION... Nothing but FELT will hold lubricants always ready for instant distribution to friction points.

DESIGNERS... FELT is one of the easiest materials to design into a machine. Our Sales Engineers are assisting design engineers daily.

DEPENDABILITY... You can rely on us for authentic information. Ample supplies and adequate manufacturing facilities assure planned deliveries. American Felt signifies a service as well as a product . . . each thoroughly dependable.

DATA... Factual Data Sheets are available. Samples will be sent gladly. Consult us with confidence. The obligation is always ours.

American Felt Company

TRADE MARK

General Offices:



GLENVILLE, CONN.

New York; Boston; Chicago; Detroit; Philadelphia; Cleveland; Los Angeles; San Francisco; Dallas; St. Louis
PRODUCERS OF FINEST QUALITY PARTS FOR OIL RETAINERS, WICKS, GREASE RETAINERS, DUST EXCLUDERS, GASKETS, PACKING FELTS, VIBRATION ISOLATING FELTS AND INSULATING FELTS

Busting Boilers

Locomotive production in Europe may be overtaken by new R.A.F. shelling stunt which rips 'em wide open.

Allied airmen who are cutting to pieces the already weakened Axis railroad system are at the same time raising the sights of invasion planners assaying the rail equipment requirements of areas to be released.

• **Postwar Need**—Rising output of locomotives and rolling stock to government order in this country reflects cognizance of this problem. Not to be overlooked is the expanding need for rail equipment in the postwar period.

The British Ministry of Economic Warfare, seldom prone to optimism, sums up the factors that contribute to an acceleration of transport deterioration in Axis Europe as follows:

(1) Effective bombing of railroad junctions, roundhouses, repair yards, and locomotive works, particularly at Rouen, Rennes, and Templehof.

(2) Normal wear and tear on equipment, rails, and roadbed which has gradually surpassed German ability to counter with new production and replacements.

(3) Sabotage of trains and tracks.

(4) Extended mileage to be serviced with less equipment, plus battle zone losses, particularly in Russia.

• **Nazi Resiliency Respected**—Recalling earlier attempts to prognosticate German collapse for reasons of raw material, manpower, fuel, and other shortages, the MEW has a healthy respect for German economic resiliency, predicts that some time will pass before "decisive results" can be expected.

Germany's efforts to meet conditions of deterioration fall principally in the following categories:

(1) Elimination of all nonessential travel and movement of goods.

(2) Shifting of all possible freight from railroads to canal barges.

(3) Looting of railroads in occupied territories.

(4) Increasing load limits per axle, and train length per locomotive; reducing loading and unloading times; extending daily ton-miles per car and locomotive.

(5) Stepping up construction, reducing repair time, and lowering equipment replacement to a minimum.

• **Austerity Locomotive**—Germany's latest attempt to beat the bottleneck in locomotives is mass production of an "austerity" locomotive, designed as a simplification of an earlier war model introduced in 1940. The new engine uses 25 tons less steel in construction (although its weight is only five tons less); reduces copper use from three tons to 464 lb.; eliminates handrails, sand box, bell, headlamp brackets, and feed-water heater; and uses a much

higher proportion of die-forged parts. Despite these measures, the momentum has swung in favor of the Allies. One important technique of transport destruction, recently developed by Royal Air Force, is only hinted at the MEW, although its effects regularly reported in British communiques.

• **Single Shell in Barrel**—Reconnaissance, scout, and escort planes have long gaged in strafing sorties against train-occupied Europe, but a riddled locomotive is easily repaired.

Today strafing is reserved for strafing trains and railroad yards where locomotives seldom have a full head of steam up. Moving locomotives get single shell in the steam barrel from trainbuster's cannon. Steam and water seeking to escape through the



For two years, British engineers have been rolling out track for a standard gauge railroad to connect Egypt with Turkey—mindful, no doubt, that they are tapping the Bagdad-to-Berlin route. Bypassing the old narrow gauge line which leaves the coast at Haifa and swing north toward Homs, the new line taps the Haifa and Tripoli oil refineries on the Mediterranean end of the oil pipelines from Mosul. Working from both ends of the route, Indian and South African work crews closed the gap somewhere between Beirut and Tripoli. The road will assume increased significance for Middle East operations now that Turkey has been cleaned up.

shelled shell hole rip the locomotive open, usually rock it off the tracks, shelling engine, tender, and cars.

Impact Being Felt—This is the job of "trainbusters" launched from East Anglia and Malta. Britain-based planes are hitting 150 locomotives a month; Maltese communiqués have claimed as many as 15 Italian locomotives in a single day. The real impact of these raids is just beginning to be felt.

Germany brags that locomotive output in 1943 will top 5,000, but U.S. experts think it will be below 3,000. The latter figure may soon be matched by the trainbusters.

Lost Properties

With a stake of perhaps five billions in territory held by Germans and Japanese, industry plans for recovery.

The recovery of financial, industrial, and trading interests which have been thoroughly muddled in the Axis hopper during nearly four years of war is not going to be a simple task (BW—Feb. '43, p.68).

Committee Formed—Likely to play an important part in determining policies for unscrambling the mess is the business-backed National Foreign Trade Council, Inc. Committees now are being set up to consider techniques for construction and recovery of American-owned assets in Europe and Asia. Headed by James A. Moffett, chairman of the board of the California Texas Oil Co., the committee on foreign holdings protection will not act as a claimant agency for individual holders but will represent leading American companies with properties broad in drafting principles and objectives for a recovery program. Findings of the committee will be submitted to Washington, and perhaps to other allied governments, for consideration at the peace table.

Policy Outlined—Americans are reported to have a \$5,000,000,000 stake in German- and Japanese-dominated areas, and the National Foreign Trade Council got its interest in the problem of recovery on the record last fall at the 29th annual convention when it stated: "Before the American Government commits itself reciprocally to abstract principles—admittedly essential in a secure, stabilized world—it should see that injustices done American owners are redressed by restoration, by substitution, by full compensation, from the enemy."

To implement this program, the Moffett committee expects to represent over 90% of American holders of foreign properties now in Axis hands.

Over A MILLION MILES A DAY...



JACOBS AIRCRAFT ENGINES

Each day the future Bomber Pilots of the United Nations are flying Jacobs-powered twin-engine Trainers more than 1,000,000 miles, from United States and Canadian training fields, acquiring the skill and precision that will devastate the factories and ship-yards, the railroads and power lines of the Axis—and that soon will blast the way for our Armies to Berlin and Tokyo.

Day-in and day-out these sturdy engines are ready to go—from dawn to dusk and into the night—on their essential mission of qualifying the Bomber Pilots for their job of freeing the World from the ruthless selfishness of Hitler and Tojo.

When this job has been accomplished, these sturdy engines will carry millions of free people safely and economically on missions of commerce, of mercy, and of pleasure.

JACOBS AIRCRAFT ENGINE CO.
POTTSTOWN - PENNSYLVANIA - U.S.A.

CANADA

Without Rum

Canadian taxpayers on pay-as-you-go basis last year now 95% of their liability paid by deduction.

OTTAWA—With Congress finally giving birth to pay-as-you-go tax legislation after close to nine months' painful gestation, Americans may be interested in how Canada "Rumitized" tax collections.

Until September, 1942, Canadian income taxes were payable in April on the previous year's income.

• **Percentage Withheld**—On Sept. 1, 1942, Canadians began to pay taxes on 1942 income. Employers withheld percentage of employee wages if workers got 75% or more of their income from salaries or wages. On interest and dividend payments, 7% was withheld at source. On Sept. 30, taxpayers filed returns on the basis of an estimated 1942 income.

Under this system, by September 1943, Canadian wage earners would have paid 90% of their 1942 tax at source. The last 10% (after correction for miscalculations of income) would be paid April 30, 1943. Taxes not collectible at source were paid quarterly beginning Oct. 15, 1942. At the same time, a boost in payroll deductions to collect 95% currently was announced for September, 1943.

• **Death Duty**—Canada's new tax law arrived Mar. 2, 1943, in Finance Minister J. L. Ilsley's budget message. It provides for collection of 95% of 1943 income tax on a current basis beginning April 1, 1943. Half of 1942 taxes are forgivable except for those with investment income above \$3,000; liability in this category is deferred until the taxpayer dies and becomes, in effect, a death duty. January-March (1943) tax collections are applied to 1943 income tax liabilities.

The half-year cancellation means that most Canadians are square with the government. Wage and salary earners had paid currently for four months; others had made two quarterly payments on 1942 income. Those in the highest category received as a bonus, credit to 1942 tax payments, the 5%-9% national defense tax (collected at some point between January to September, 1942). In lower income brackets, this bonus paid (or overpaid) the two months' tax still due on 1942 income. In the higher-income brackets, the bonus was of little help and these taxpayers must kick in from \$29 to \$239 on June 30, 1943. Low-

AMAZING? Yes!

*But It Has Been Proved in
Scores of War-Production Plants..*



With this Revolutionary New

PORTER-CABLE

WET-DRY BELT SURFACER

Sure, wet-dry belt surfacing is new and different . . . contrary even to some of the old concepts of machining methods. But . . . how this new Porter-Cable Wet-Dry Belt Surfacer does put through the work!

Of the hundreds of hard-headed, practical production men who are using it and swearing by it today, some were pretty skeptical at the start. They even brought us their own most difficult pieces to finish—steel, iron, bronze, copper, aluminum, magnesium, zinc, plastics, glass, hard rubber, fiber, compositions of all sorts. They thought that these materials and these pieces could never be finished accurately on a belt grinder. And when they saw it done—either free hand or with fixtures; when they saw that the required tolerances were held and that the finish was superior to the way they had been doing it, they almost disbelieved their own eyes. Because it was faster—**MANY TIMES FASTER**—than the method they had been using.

That's why they bought—and why they're still buying—whole batteries of these moderate-cost, high precision surfacers. That's why they're using them, too, on jobs no one even thought of at first. And every new application just clinches the fact that this wet-dry belt surfacer is a wonderful new precision tool of almost limitless possibilities.

• **ASK FOR BOOKLET.** Find out for yourself. Write today for a free copy of **WET-DRY BELT SURFACING**, the new, low-cost way to increase output and relieve the production load on many different types of machine tools.



PORTER-CABLE Machine Co.

2030-5 N. Salina St., Syracuse, New York

Manufacturers of

Complete line of Abrasive-Belt Surfacers Porter-Cable Disc and Spindle Sanders

Speedmatic Portable Saws Universal Milling Machine Attachment

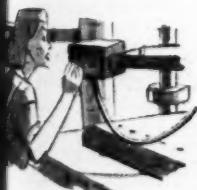
Speedmatic Floor Sanders Take-Apart Portable Sanders Chain-Drive 7" Shaper

W YOUR ACCIDENT RATE

With today's longer work hours, green manpower, and shortage of trained supervision, lost-time accidents are doubly hard to keep down. In many war plants, G-E application engineers have helped to put an effective "squeeze" on rising accident rates—working with tools like these described here. G-E engineers will gladly co-operate with your safety personnel to increase the effectiveness of *your* wartime safety program.

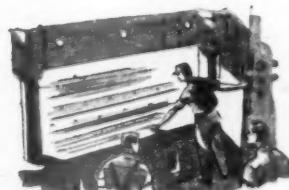


LING OF CRANES is becoming a thing of the past, thanks to G-E strain gages and selsyns. When the load is too heavy or the boom-angle, a warning automatically sounded before the operator applies enough power to cause the crane to tip. He no longer has to guess at what is the safe load and boom-angle combination.



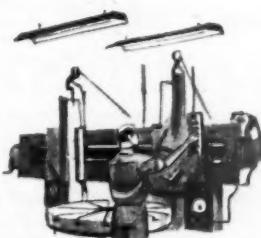
SAFETY OF HANDS is assured on hazardous jobs by series arrangements. For safe control, two push buttons are required so as to require use of both operator's hands simultaneously to make the machine operate. This system is also extensively used with G-E Thrustors, which are remote-controlled, electric "muscle" in danger areas.

SAFETY OF WOMEN who do welding has been increased by a new line of protective jackets, aprons, gloves, cape-sleeves, trousers, and special head covering. This apparel, recently introduced by General Electric, is also comfortable, smart in appearance, and a real help in maintaining feminine enthusiasm for welding.



ELECTRIC EYES can be applied to watch many danger zones, sounding an alarm or stopping the machine to keep operators out of danger. For example, on large hydraulic presses operated by several men, several beams of light can be used. When any one of these beams is broken, the oil pressure is cut off, instantly stopping the press.

QUICK STOPPING facilities engineered by G.E. have eliminated a serious safety hazard along conveyor belts in many war plants. Push buttons which actuate switches on the drive motor are located close together along the conveyor. Operators can stop the conveyor instantly, thus saving seconds in which a mishap might become a serious injury.



SAFETY AROUND MACHINE TOOLS is stepped-up when operators must "keep their distance" from fast-moving parts. Moveable G-E pendent-type push buttons centralize control where the operator is *out* of danger, and provide convenient emergency-stop switches. Thus protected, operators save time and can concentrate all their attention on the work.

GENERAL ELECTRIC COMPANY, SCHENECTADY, NEW YORK

GENERAL  **ELECTRIC**

GE-41-2000

Tune in the General Electric MAZDA Lamp Radio Program—10 p.m. E.W.T. Sundays—N.B.C.



AFTER THE WAR... WHAT?

WHEN the final blow of this war has been struck and Victory won, American Industry will turn to the manufacture of amazing new Homes, Planes, Automobiles, Radio and Television sets, Refrigerators, Washing Machines and thousands of other peacetime marvels which to Americans are not luxuries but necessities of everyday life.

When that BETTER DAY comes, industrialists will find in North Carolina those factors which make for the most efficient and profitable operation. North Carolina offers special advantages to those interested in mineral, chemical, plastic, woodworking and plywood, textiles, food processing and ceramic fields.

Here, workers are 99% native-born . . . willing, efficient, intelligent, coop-

erative. The supply is ample.

Raw material resources are vast. Hydro-electric power is plentiful.

North Carolina's strategic location—outside the congested areas, yet close to major centers—affords economical production plus efficient distribution. Production costs are further reduced by the year-round mild climate. Living conditions are ideal: Healthful climate . . . abundant outdoor recreational facilities.

North Carolina is in a sound financial position. The tax structure appeals to all types of business men. North Carolina invites postwar industrial planners to write today for specific information, engineered to your field. Address, Commerce and Industry Division, 3113 Department of Conservation and Development, Raleigh, North Carolina.

NORTH CAROLINA

income earners who have overpaid 194 taxes will be given a credit.

• **The New Bill**—In the new tax bill assessments range from 30% on the first \$500 of taxable income to 55% on taxable income of more than \$100,000. Every taxpayer may deduct \$600 of income before computing the tax; some can deduct \$28 from the compute tax for each dependent except one; and married men get a \$150 deduction from the tax, plus cuts for dependents.

Taxpayers will receive a postwar refund, nominally 50% of total taxes paid within limits. A single person, for instance, will get a refund amounting to 8% of his income or \$800, whichever is less.

Thus, with the 1943 tax bill, Ottawa put Canadian taxpaying 95% on current basis. The final 5% overlap described as a permanent margin to permit later adjustment of errors made in advance calculation of incomes.

State Monopoly

Dominion plans to run its international airlines after the war, and it may also operate the ships it has built.

OTTAWA—Canada is assembling the ingredients of a major postwar battle over state intrusion on commercial enterprise. It will probably be sparked by Ottawa's dominance over commercial interests in air and ocean transport and by the need for giving quick effect to national policy on these and other issues to be faced at international conferences.

In the operation of peacetime international air lanes, the government plans to run Canada's main trunk line, and private interests are lining up forces for a fight. The possibility of a similar policy in regard to ocean shipping has come into the picture with the disclosure that Ottawa is retaining ownership of hundreds of cargo ships built in Canadian shipyards for operation in the United Nations ship pool.

• **Air Monopoly**—When London and Washington began to worry about postwar policy, Ottawa was forced to take a stand. Prime Minister Mackenzie King responded with an outline of basic policy which showed alertness to Canada's strategic geographic position but was disturbing to private interests that hoped to share in the development of global aviation.

Under the King policy, Ottawa proposes to give international air service rights to government-owned Trans-Canada Airlines. Private interests may fight over feeder routes and other internal lines, but Ottawa reserves the right to take over any existing or future

aid 194
tax bill
on the
to 85%
in \$100
ct \$60
the tax
computer
one; an
on from
s.
postwar
ates paid
on, for
ounting
which
Ottawa
on
erlap
margin
ers mad
es,
y
un it
er the
te the
ing the
battle
cial ca
rked b
mercu
ort and
fect to
her i
al co
nt plan
e, and
ces fo
ar po
s come
re tha
f hu
nadian
United
n an
t pot
o ta
kenza
f basi
Can
n ba
s tha
ent o
a pro
service
Trans
s may
er i
s the
future
194

for operation by T.C.A. This leave Ottawa representatives at conferences on postwar air policy with a hand to barter for a strong position world transport alignments.

This is merely an aerial projection of prewar competition between government-backed Canadian Nationalways and privately owned Canadian Pacific Railway. C.P.R. owns and operates nearly all commercial airlines in Canada except T.C.A., run for the government by C.N.R. C.P.R. now faces same treasury-propelled competition in the clouds against which it has prided on the ground for 15 years.

American Shipping—Munitions and Supply Minister C. D. Howe has revealed a million tons of cargo ships left Canadian ways last year, and 200 ships were rented to Britain. Ownership is Canadian. Will these ships come back to Canada as a merchant marine subsidiary of C.N.R. as was done in the last war, or will they be turned to private lines for operation consistent with Dominion postwar international trade policy?

It is assumed that Ottawa means to the proposed merchant marine as instrument for implementing trade policy, but as most of the big steamship companies participating in Canadian ways before and during the war are either owned and, to a large extent, owned by Britain, a question arises as to whether operations can be tied to government policy without actual government control.

Handicap Seen—When Howe announced that Canada would not follow United States shipyards in the construction of faster ships—as a means of beating the U-boat—Canada's postwar competitive position in shipping took a dip. After the last war, C.N.R. operation of slow cargo boats owned by the government entailed a heavy loss to the treasury until they were lost or sold. Subsequently, under the terms of a new agreement between Canada and West Indies, C.N.R. put into operation a small fleet of modern passenger cargo ships between Canadian and Caribbean ports.

Some of this war's cargo ships built in Canada have been sold to the U. S. cash under the Hyde Park agreement to give Canada U. S. dollars for purchases. Most of the others have been chartered to Britain for \$1 a year. About 18 others are allocated by a Canadian Crown company, Park Steam Co., to commercial shipping lines under voyage charters. The boats are operated for the government for a small sum, earnings being credited to government account for paying off building costs. Canadian ship companies now support an Ottawa determination of national policy which will safeguard Canada's position in the battle for trade after the war.

Business Week • May 22, 1943

Paper and printing multiply manpower
—and manpower will win the war

NEW LITTLE BOOK SHOWS YOU How to answer today's mail...today!



Written for every man who has said, "The mail's coming in faster than I can answer it"

YOU CAN'T AFFORD delays in today's correspondence. They're too expensive. Unanswered letters irritate customers



Avoid a "Junk Heap" Desk.

... delay decisions ... upset office routine, slow down deliveries, impede production. So if your desk's a junk heap—cluttered up with scattered, unanswered mail—you need Hammermill's new, free little book, "Very Promptly Yours."

It offers a practical plan for speeding up correspondence,

routing important letters through the office, organizing your files to meet the increased burden they must handle today. It shows office-tested forms which your printer can adapt to your particular needs. It suggests



... New Little Book Shows How

ideas which can save you hours of unnecessary delay, and help put your office on an accurate, speedy basis.

Mail coupon now for your free copy of "Very Promptly Yours."

**FREE! SEND
THIS COUPON
TODAY FOR
YOUR COPY**

Hammermill Paper Co., Erie, Pa., Dept. BW-5-22
Please send my free copy of "Very Promptly Yours."

Name _____

Position _____
(Please attach to your company letterhead)



LABOR

The House That Jack Built

Generosity of Jack & Heintz toward "associates" produces results but infuriates other employers, who gleefully anticipate postwar competition and question whether workers can stand pace.

Blossoming under the sun of favorable publicity these past few months, Jack & Heintz, Inc., of Cleveland (BW-Mar. 7 '42, p.72) has expanded not only its manufacturing operations, but also its generous treatment of its associates, as all employees are called by their boss, William S. (Bill) Jack.

• **Gets Results**—Other manufacturing concerns in northern Ohio, a number of whom heartily despise the Jack & Heintz methods, generally agree that these methods do get results in terms of production and profits, at least in this company's present situation.

When Bill Jack appeared before the Toland committee in Washington a little over a year ago, he had a payroll of 4,000. The Jahco (trade name) starter, designed by Ralph H. Heintz, partner and vice-president, and generator assemblies were rolling out so fast that Jack agreed some new contract terms were in order.

• **Claims Monopolies Broken**—In defense of his profits and generosity, he argued that Jahco broke a starter monopoly (Bendix) and that another Jahco product launched about that time, the automatic pilot, did likewise (against a Sperry product). Jahco, Jack claims, undersells its competition.

In the past year, the family of associates has expanded to almost 7,000. Jack

distributed a Christmas bonus of over \$1,000,000. To all appearances, everyone working for Jahco has continued to be prosperous and happy.

• **No Magic**—Disinterested analysts of the Jack & Heintz situation conclude that it contains no magic. The results might not be possible without a Bill Jack personality, or its equal, plus something that would parallel the Heintz inventive genius; but there is no mystery about what Jack is up to. He is trying to get every possible ounce of work out of every one of his associates. The foundation of that effort has been to convince each worker that his own welfare and the welfare of his company are intertwined.

If this policy has cost money, it also has paid handsome dividends. For example, the Jahco monthly banquet, which has outgrown all Cleveland hotels and is held in the public auditorium, costs \$2 a plate—and there are 5,000 plates. The banquet provides an ideal setting for a war production pep talk.

• **Vocal Appeal**—The associates seem to vibrate with every word Jack utters. If he says, "Gang, the Navy wants us to increase production next month by 10%; can we do it for 'em?" the answer is sure to be a tremendous roar of approval. And the enthusiasm thus generated, and carefully nurtured through

out the month, meets or beats the schedule.

This enthusiasm, which Jack matches by working even longer than the associates, who average from 75 to 80 hours a week, is contagious. The waiting list of Jahco applicants, according to associates who keep the records, exceeds 35,000—after 15,000 older applications were taken out of the files.

• **Weekly Jackpot**—On the basis of hourly wages, Jahco workers are in the top bracket but not at the extreme top of wage levels among aircraft parts makers in the Cleveland-Toledo-Detroit industrial crescent. Their big earnings grow from their twelve hours a day seven days a week (shorter hours Saturday and Sunday). They get straight time for the first 40 hours, and time and half for something like another 40 hours. At \$1 an hour, an 80-hour week would pay \$100. And a large part of the skilled workers have a scale above \$1 an hour, so Jahco workers are inclined to feel that they hit the jackpot every week.

On top of their overtime, Jahco workers get free a midday or midnight meal, balanced meal; specially designed, easy fitting work shoes; insurance with benefits for death, disability, and hospitalization; hot coffee any time; fresh doughnuts and hot soup once each shift; uniforms; dental examinations and emergency treatment; income tax assistance; health service including steam room, foot treatments, body massage, and daily vitamin capsules; two-week vacation with pay, with free cottages in Florida or Canada for associates with the highest seniority; music while they work piped through a public address system; with occasionally a personal appearance or a few words over the speakers by Bill Jack.

• **Recreation Center**—To complete the country club atmosphere, Jahco remodeled a former gambling club into a com-



Other Cleveland manufacturers may predict that Jack & Heintz' unorthodox production methods and labor relations will wind up in disaster, but Bill Jack (above left), president, pushes the throttle all the harder. The firm's

7,000 employees or "associates" get free meals, recreational facilities, and good pay in exchange for long working weeks—and like it. So at monthly banquets, when Bill exorts them to work harder, they cheer and then do

recreation center with bowling alleys and refreshment stands. This belongs to the associates, not the company. Shares are \$100 each, limited to one for each Jahco associate, and salable at par by the company any time the shareholder ceases to be a member of the Jahco family.

Jack & Heintz justify these expensive benefits on the ground that they keep workers on the job, working at a production rate that they boast is unequalled by any manufacturer.

Some Get Tired—As might be expected, a worker now and then tires under the strain of an 80-hour week and comes back to his old boss for a 48-hour job. Some companies welcome their prodigals, while others have made it a policy that anyone who has quit to work for Jack & Heintz can't return. Complaints that Jahco had been pirating workers from older firms—a charge Jahco always denied—have almost disappeared since job freezing became effective in the Cleveland area.

"Except that your stockholders would think you had gone crazy, even though they kept on getting the same or bigger dividends," one Cleveland manufacturing executive commented, "almost any company could run its plants like Jack & Heintz, at least as long as the war is on."

Enthusiasm Boosts Output—He contends that almost any factory worker (or office worker for that matter), even a father with sons in the armed services, doesn't usually work at a rate exceeding 75% of his full capacity. Work enthusiasm, generated by Jahco or similar methods, can boost output to a figure approaching 100%—as Jack & Heintz have demonstrated.

A moot question, of course, is whether men and women can sustain capacity output over a long period of years, in peace as well as in war. Jahco, a war baby, is still too young to furnish the answer from experience.

Selling Himself—Bill Jack, who never dodged the limelight, isn't making any special effort to get other firms to put their cloth to his pattern, any more than he tries to get his friends to wear the Bill Jack type of sport shirt which alternates with his own Jahco uniforms. When he makes a wow of a speech, as he has done three or four times lately before business audiences, it's merely indulging the born promoter's natural desire to sell himself.

To keep the associates on the payroll after the war, Jack has been telling them with conviction that Jahco has plenty of products in its research laboratory, ready to go. To strengthen associates' belief in their own job security, Jack announced early this year a postwar defense fund of \$7,500,000, of which \$1,500,000 was cash and the rest contingent on tax rebates.

Different Story—After the war, rival manufacturers add to the Jahco saga,

A clever adaptation OF STANDARD *Delta Machine*



SLOTS TWO AT A TIME!

The Boxar Tool & Die Company took full advantage of the adaptability of Delta Drill Presses to work up this time and labor saving set-up. The photograph above shows how an ingenious fixture on a standard 17" Delta Bench Model Drill Press is being used for slotting the striker on a M-103 fuse. Two slots are required on each striker. With this set-up, the operator is slotting two at a time by moving a divided fixture on a rack movement into a milling cutter.

Delta Machines Are Flexible

In thousands of cases, standard Delta machines have been used to build special set-ups that have increased output, saved time, made possible the use of unskilled operators and freed more costly machines for work they handle more advantageously.

They can do the same for your shop.

Send for Catalog

giving details and prices on the full line of Delta Drill Presses, Grinders, Band Saws, Abrasive Finishing Machines and other Delta low-cost machine tools. Get in touch with your nearest Delta Industrial Distributor or send coupon.

DELTA
MILWAUKEE

THE DELTA MANUFACTURING COMPANY
903 E. Vienna Ave., Milwaukee, Wis.

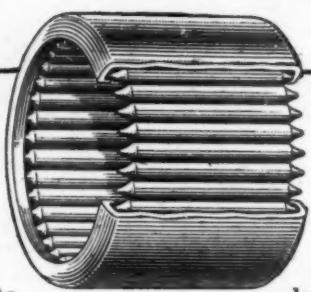
Please send me latest Delta Catalog giving full details and prices on your full line of low-cost machine tools.

Name.....

Address.....

City..... State.....

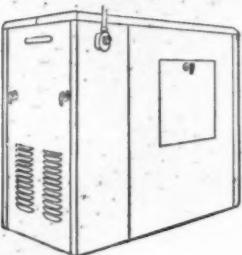
This "Big Candle" a cousin to your next Oil Burner?



Now, there's a part in anti-aircraft searchlights that helps them respond so swiftly and accurately. With peace, the same part in your oil burner may reduce the need for replacements...lengthen equipment life. It's the Torrington Needle Bearing.

Actually, the post-war possibilities for improved performance through the application of this unique anti-friction bearing are almost limitless. It will reduce fuel consumption in Tomorrow's motor boats—make steering easier in automobiles—make office machines more compact in design, lighter in weight and lower in cost.

Until the war is won, however, demands for Needle Bearings for applications such as anti-aircraft searchlights come first. But when



industry returns to pro-

duction for peace, you're going to find the Needle Bearing in a good many of the things you normally buy, and they'll be better buys.

THE TORRINGTON COMPANY

TORRINGTON, CONN., U.S.A. • Established 1866

Makers of Needle Bearings and Needle Bearing Rollers

New York Boston Philadelphia Detroit

Seattle South Bend Chicago Cleveland San Francisco

Los Angeles Toronto London, England

TO MANUFACTURERS OF PRODUCTS that use bearings—you will want to consider for your post-war designs the many sales and manufacturing advantages the Needle Bearing offers through such features as—

- | | |
|-----------------------|--------------------------|
| 1. Small size | 4. Efficient lubrication |
| 2. Light weight | 5. Ease of installation |
| 3. High load capacity | 6. Low cost |

Typical applications of the Needle Bearing, as well as preliminary information on sizes and ratings, may be found in Catalog No. 121. Send for copy today.

**ALWAYS REMEMBER TO ASK:
DOES IT HAVE**

TORRINGTON NEEDLE BEARINGS



Jack & Heintz will have to compete on a dollar-and-cents basis for contracts with the aircraft builders, for example, rather than the government. And in such a situation, flashy wartime policies may not fit. Also, possible customers who have been irked by the Jaho company's open-handed policies may be glad to be freeze out these upstarts. To this, Jack replies that he may find time to work about such nonsense after we win the war.

Contrary to published reports, Jaho doesn't have a closed shop. Its contract with the A.F.L. Machinists Union calls for the union shop, which means that management can hire new workers regardless of affiliation, but the new worker is required to join the union.

• One C.I.O. View—An active C.I.O. unionist commented that Bill Jack dominates his labor relationships with his own personality, and the result is that he has a force of 7,000 foremen and "one big, happy company union."

BMU Spreads Out

Manpower utilization body finds its job is much broader than trouble-shooting; many cases come from USES.

The War Manpower Commission's Bureau of Manpower Utilization, now about three months old, is finding itself a considerably broader job than its original trouble-shooting function (BW -Feb. 27 '43, p52).

Organized under the leadership of Dr. Frank Sparks, president of Wabash College and a director and former head of Noblitt Sparks Industries, the BMU was to consist of some 200 "manpower consultants." Original idea was that whenever a manufacturer found himself in trouble on a manpower problem, he would call in one of the consultants.

• How Duties Fan Out—About half the consultant staff has now been assembled. Already BMU is finding that it has a definite role to play in the day by day operations of the War Manpower Commission. It gets involved in several classes of cases.

A major type comes in through the United States Employment Service. When an employer starts putting heavy demands on USES for men, the service begins to wonder whether he's making the best possible use of the men he has. It's up to BMU to find out. Thus when Henry Kaiser started hauling men wholesale from the New York City area, USES reminded him that there were a lot of rumors going around about his use of manpower, asked if he minded BMU's looking over his yards. A flock of BMU men spent several days in conferring with Kaiser

officials and in studying his operations. It didn't take long to bring out the fact that, in the mushrooming growth of the Kaiser organization, no integrated personnel policy had ever been developed. Men were hired everywhere in the country, sent to the yards, and assigned to whatever foreman was yelling loudest for workers—without much effort to analyze the workers' capabilities. There was no provision for interdepartmental transfer of workers. Use of women was expanding, but no policy had been developed as to what sort of jobs they could do or how to deal with them.

• **New Personnel Man**—BMU, in this case, offered to find Kaiser a good man to work out a personnel setup for him. Kaiser jumped at the chance, and Arthur H. Young, who used to be with U. S. Steel, is now studying the yards.

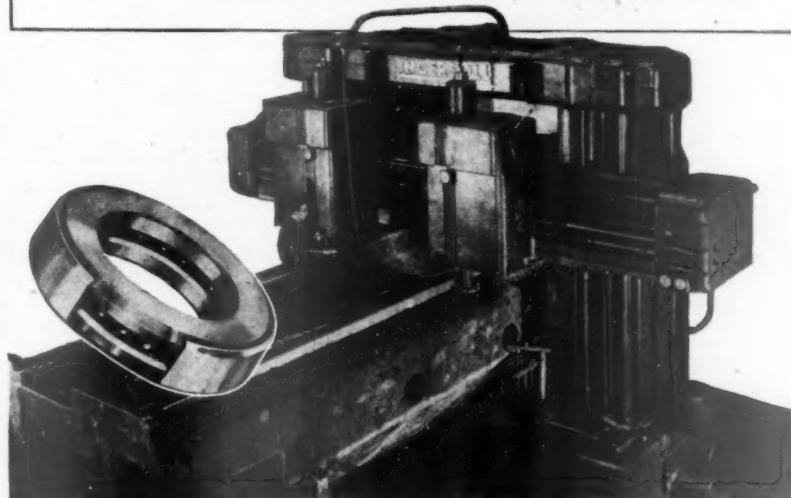
Another type of case arises from complaints. Hundreds of workers write letters to the President, their congressmen, or to WMC Chairman Paul V. McNutt, complaining that their employers are hoarding labor, that they don't have enough work to do, etc. Such complaints are referred to the manpower consultant in the area.

• **The Friendly Approach**—If a lot of complaints come in on the same employer, the consultant will drop around to find out what's wrong. Usually a friendly approach to top management results in a joint investigation of the trouble. Sometimes it's necessary to hint darkly that USES might have to stop referring workers to the plant. This sort of approach is avoided where possible. Sparks is convinced that it's practically impossible to improve a plant situation without the cooperation of management.

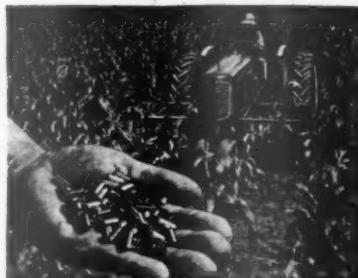
An increasingly important type of case arises out of the analysis of manning tables. These tables—tabulations of the personnel situation in a company submitted to WMC in order to obtain a plant-wide selective service program—come under BMU's jurisdiction. By comparing the manning tables submitted by different concerns in the same line of work, a manpower consultant can get a pretty good idea as to which firms are using too many men. Then he can ask permission to look over the individual situation.

• **Popularity Grows**—Indications are that the manning tables will soon give a pretty good cross-section of industry. Although employers were slow to take to the plan, they are now beginning to use it. Last month nearly 650 tables were approved, more than in the entire preceding five months. A further big stepup is to be expected now that the plan has been in operation six months. Many firms have made the simpler replacement schedules, which are limited to draft deferment questions; a firm that does this is required to pre-

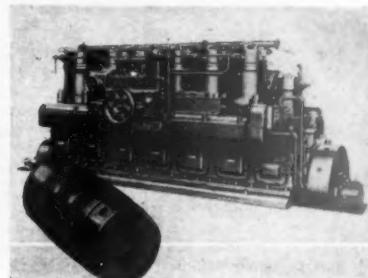
IN THE NEWS WITH BANTAM BEARINGS



TRY THIS FOR SIZE! The 180-ton giant built by The Ingersoll Milling Machine Company and shown here milling a casting weighing 25 tons is an example of American ingenuity in machine tool design. This unit has four cutting heads—any two of which can use the full 100 h.p. of the drive motor. And in each head two Bantam Ball Thrust Bearings carry the drive shaft load, insure dependable, service-free anti-friction operation of these parts.



MORE FOOD FOR VICTORY puts an additional task on farmers and farm machinery alike. But Oliver Farm Equipment Company's Row Crop 70 Tractors are built to take it. Bantam Needle Roller Bearings are used to carry the bull pinion and differential side gear on the differential shaft, providing the necessary high unit capacity and insuring efficient maintenance-free anti-friction operation.



MORE POWER FOR WAR PRODUCTION is provided by modern diesel units like the Fairbanks, Morse Engine shown above. To achieve the high load capacity and long service life required in the piston pin bearings, Bantam designed a special needle roller wrist-pin bearing. This is a typical illustration of Bantam's ability and service in supplying special bearings for new and unusual applications.

A COMPLETE NEEDLE BEARING SERVICE is offered by the combined facilities of Torrington and Bantam. Here, from one source, you can get the unbiased counsel of engineers experienced in the selection and design of bearings for every purpose and a dependable source for every major type of anti-friction bearing. For the prompt solution of your bearing problems, TURN TO BANTAM.


BANTAM BEARINGS
STRAIGHT ROLLER • TAPERED ROLLER • NEEDLE • BALL
THE TORRINGTON COMPANY • BANTAM BEARINGS DIVISION
SOUTH BEND, INDIANA

GOT WAR PRODUCTION PROBLEMS?



HEIN-WERNER HYDRAULIC JACKS

of 3 to 30 tons capacity will enable you to easily

- Bend Rods, etc.
- Press Bushings
- Move Machines
- Lift Heavy Loads

Chances are you can do a lot of jobs in your plant quicker and easier through the use of Hein-Werner Hydraulic Jacks. Available in models of 3, 5, 8, 12, 20 and 30 tons capacity... For details, consult your nearest industrial supply distributor, or write us.

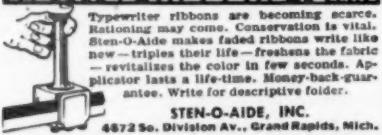
HEIN-WERNER MOTOR PARTS CORP.
Waukesha, Wisconsin

HEIN-WERNER HYDRAULIC JACKS
Are Built Right and Priced Right

97 TRUE SUCCESS STORIES

711 Pioneer California Businesses have continuously served the public for 50 years or more. The inspiring record is revealed in a 160-page, digest size booklet, providing a true picture of the part individual initiative played in the romance and development of California and the West. 97 original articles by the founders, their sons or grandsons or present heads—97 true success stories—of intense interest to every business person. Facts hitherto unpublished. More entertaining than fiction. Postpaid 50 cents. Ghost Town News, Buena Park, Calif.

REVIVES RIBBONS $\frac{1}{2}$ Cent



Typewriter ribbons are becoming scarce. Rationalizing may come. Conservation is vital. Sten-O-Aide's unique faded ribbons write like new—triples their life—freshens that fabric—revitalizes the color in few seconds. Applicator lasts a life-time. Money-back-guarantee. Write for descriptive folder.

STEN-O-AIDE, INC.
4872 So. Division Av., Grand Rapids, Mich.

SOUTH AMERICAN DEVELOPMENT

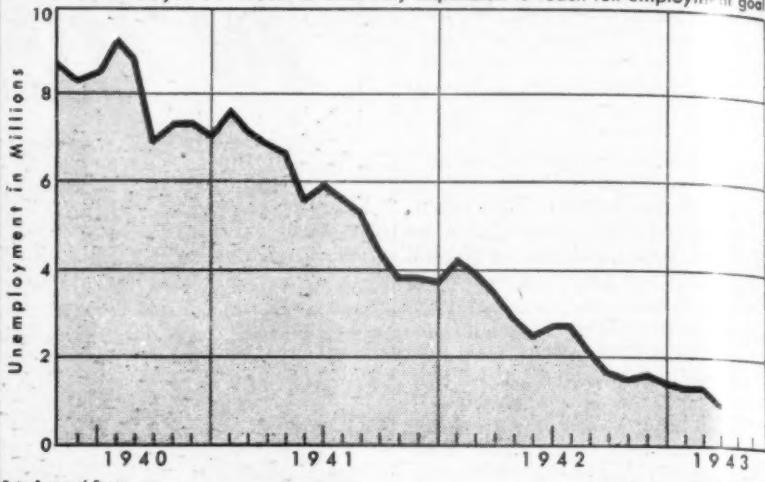
Executive engineer. Exceptionally broad experience surveys, development, installation, operation South American industries. Capable training, chartered American expansion program, sales, manufacturing. Native-born American, 46, Christian, married. Fluent Spanish. Salary \$12000+. Interview by appointment.

PW-346, Business Week
520 North Michigan Ave., Chicago, Ill.

"Clues" last week (page 96) featured the following opportunities: position wanted, wanted—pattern work, selling, and speed-up equipment. Have you an opportunity of special interest to Management Men to offer, in the next issue?

WAR WIPES OUT UNEMPLOYMENT

It took three years of industrial and Army expansion to reach full employment goal



© BUSINESS WEEK

In its April report on the labor force, the Commerce Dept.'s Census Bureau estimated that there were 1,000,000 unemployed, and it commented, "This sharp decline, which followed a short period of relatively small changes, brought unemployment to a level which is probably not far above the irreducible minimum." But the following month's figures showed a 10% decline in unemployment. Widely held ideas of the "irreducible minimum" have been knocked into a cocked hat by the war. A standard

peacetime estimate of the number of unemployed we would have under theoretical full employment was 2,000,000. At least that many, it was maintained, would be changing jobs, suffering seasonal layoffs, or be unemployed by technological or product adjustments. Now the irreducible minimum is probably zero, although for all practical purposes 500,000 is rock bottom unless we get a National Service Act that will eliminate time lost through job transfers due to a multiplicity of causes.

pare a real manning table within six months, and the time is beginning to run out. There are now about 5,500 approved replacement schedules outstanding covering some 3,000,000 workers as compared with the 1,300 manning tables covering about 850,000.

Effectiveness of BMU operations depends almost entirely on the caliber of the consultants. Sparks is well pleased with the 100 or so men he has been able to gather so far.

• Gathering a Staff—Nucleus of the organization was drawn from the occupational analysts on the staff of the Manning Tables Division of WMC. For the rest, Sparks has drawn on two main groups: young industrial engineers, to whom the government salaries (\$3,800-\$5,600) at least don't represent too much of a cut and who welcome the chance to get a diversified experience, and older men on the verge of retirement who, with a broad business background, can afford to quit their jobs. In addition, Sparks has been accumulating a panel of business men and industrial engineers upon whom he can call for specific jobs on a part-time basis.

BUFFALO PLAN STYMIED

White hope of the tight labor market in Buffalo—76,000 new workers are needed before the year is out—still is the employment stabilization program voluntarily adopted late last year (BW—Nov. 7 '42, p90). Yet present indications are that the plan will not be put into effect the way Mrs. Anna M. Rosenberg, regional director for the War Manpower Commission, desired.

It was all to be left to local planning, labor and management to hit upon an agreement for government approval. But, when the local representatives met to put the plan into effect, they found that WMC authorities had eliminated the clause that would have allowed workers to move into better-paid jobs.

Result was that labor balked, no effective date has ever been set for the plan. Buffalo has its glamourous and highly paid aviation industry, and its hot and heavy industries like steel mills, foundries, and machine shops which pay less. This disparity accounts for labor's kicking over the traces. Meetings now are working for a solution, but they haven't progressed far.

TO HIT 'EM H-A-R-D-E-R



THE year 1943 promises to be the grimmest, hardest year this country has ever faced. Every effort, and every dollar of national income not absolutely needed for existence, should go into war work and War Bonds.

In the Pay Roll Savings Plan, America finds a potent weapon for the winning of the war—and one of the soundest guarantees of the preservation of the American way of life!

Today about 30,000,000 wage earners, in 175,000 plants, are buying War Bonds at the rate of nearly half a billion dollars a month. *Great as this sum is, it is not enough!* For the more dollars made available now, the fewer the lives laid down on the bloody roads to Berlin and Tokio!

You've undoubtedly got a Pay Roll Savings Plan in your own plant. But how long is it since you last checked up on its progress? *If it now shows only about 10% of the gross payroll going into War Bonds, it needs jacking up!*

This is a *continuing* effort—and it needs *continual* at-

tention and *continual* stimulation to get fullest results.

You can well afford to give this matter your close personal attention! The actual case histories of thousands of plants prove that the successful working out of a Pay Roll Savings Plan gives labor and management a common interest that almost inevitably results in better mutual understanding and better labor relations.

Minor misunderstandings and wage disputes become fewer. Production usually increases, and company spirit soars. And it goes without saying that workers with substantial savings are usually far more satisfied and more dependable.

And one thing more, these War Bonds are not only going to help win the war, they are also going to do much to close the dangerous inflationary gap, and help prevent post-war depression. The time and effort *you* now put in in selling War Bonds and teaching your workers to save, rather than to spend, will be richly repaid many times over—now and when the war is won.



You've done your bit Now do your best!

This space is a contribution to victory today and sound business tomorrow by BUSINESS WEEK

How many "mental sit-downers" have you in your organization?

"In every factory and store, among office workers and salesmen, costly 'sit-downs' have been going on for a hundred years—mental sit-downs," says Craig Davidson. "Commands to do thus and so have met with mental sit-downs which have been just as effective in blocking production and sales as any physical sit-down that ever stopped an assembly line."

"That is one reason why this book," he goes on, "should be useful to any man whose job is to get other men to do their work right. It should visualize for him what causes mental sit-downs and what to do about them."

Getting Things Done in Business

By EVERETT B. WILSON

Director of Porto Rican Trade Council,
Formerly Assistant Director of Personnel,
Kroger Grocery and Baking Company

Second Edition, \$2.50

"An executive's success depends squarely on two points: whether he has good ideas and whether he can get his ideas actually and properly used." This book deals with methods of getting your ideas used efficiently. It

tells how to get policies, plans and instructions carried out as they were designed to be carried out. It is in effect a working manual on leadership. It tells how to secure effective and intelligent cooperation.

Have you seen the
Revised, Third Edition
Hutchinson's
STANDARD HANDBOOK FOR SECRETARIES

616 pages, 6 x 9
\$2.95

CAN you depend on your secretary to handle any assignment judiciously, quickly, correctly? Can you depend on her English?—her smooth and efficient handling of people? Here is a new book that spells better results in all work of the secretary. Placed at your secretary's hands it will be invaluable in assuring the correctness of correspondence, in eliminating error, in promoting good relations, in providing a wealth and variety of information that will enable her to handle many details of work with more satisfaction to you.

Gives you many practical ideas on:

- What are the real reasons why subordinates disregard instructions?
- What can be done to get instructions carried out efficiently?
- What are the disadvantages of driving?
- How can you improve subordinates' attitudes?
- How can you really check performance?
- How can you criticize subordinates effectively?
- How can you develop responsible subordinates?
- How can you dispose of alibis?
- What is the technique of developing enthusiasm?
- How can you guard against troubles of jealousy?

Examine this book for 10 days

SEND THIS McGRAW-HILL ON-APPROVAL COUPON

McGRAW-HILL BOOK CO., Inc., 330 W. 42nd St., N. Y. C.

Send me the books checked below, for 10 days' examination on approval. In 10 days I will pay for the books, plus few cents postage, or return them postpaid. (We pay postage on orders accompanied by remittance.)

- Wilson—Getting Things Done in Business, \$2.50
 Hutchinson—Standard Handbook for Secretaries, \$2.95

Name _____

Address _____

Position _____

City and State _____

Company _____

BW-5-22-43

WIPS for du Pont

Women in Production Service established at Virginia plant; promotion in rank based on individual effort.

Production days lost by female absenteeism cut 21% the first month.

Improvement in all safety records including, in one plant unit, a month without a single minor injury for the first time in 13 years.

Increase of 600% in suggestions submitted by employees.

Marked increase in the purchase of war bonds.

• **Ties Into War Effort**—Such are the dividends which the E. I. du Pont de Nemours & Co. is reaping from the establishment, in its Spruance plant at Richmond, Va., of the WIPS—Women in Production Service—a voluntary, semi-military organization of women employees which ties their plant duties directly into the war effort.

WIPS has been incorporated in Virginia, but the Spruance War Production Committee will make the scheme available to any war plant. Like the WOW—Women Ordnance Workers (BW-May 1'43, p91)—it is open to every woman employed at Spruance, whether she is



A practical set of suggestions to executives giving detailed directions for getting employees to do their jobs as management thinks they should be done.



UNLOADERS LEARN HOW

When Gen. Eisenhower's expedition piled into North Africa, unskilled natives were the only longshoremen available to help unload its munitions and equipment. Now the Army is arming against future shore bottlenecks by training its own men in the technicalities of loading and unloading. With a dummy ship's hatch (above) and steam winches, hundreds of khaki-clad longshoremen are being turned out at Ft. Lawton, Wash.

operator, forelady, or office worker. • How to Qualify—Qualification for VIP-Senior Grade involves purchase of war bonds, no injury in 30 days, no absence in 30 days, and remembering to bring a gate pass and punch the time clock for 30 days. This is the first rank attainable after "induction" and award of the distinctive red, white, and blue shoulder insigne.

Above WIP-Senior Grade, the employee may progress to Junior Lieutenant, Senior Lieutenant, Captain, and Major. Each rank has its insigne. The top grade requires investment of 10% of income in war bonds, no injury for a year, no absence for a year, three suggestions submitted and one adopted, civilian defense activity, and the supervisor's approval of individual job effort.

First Milestone

Labor-management groups hailed by Nelson on anniversary as sound, effective approach to stimulation of production.

On the occasion of the first anniversary of labor-management production committees sponsored by the War Production Board, Chairman Donald M. Nelson finds that they "show convincingly that this approach to the problem of increasing production is sound and extremely effective."

• Survey Covers 45%—Nelson's unreserved approval is appended to the first labor-management activities survey that has been prepared by War Production Drive Headquarters, WPB's unit that helps steer the work of the more than 2,000 plant committees now functioning (BW-Jun.20 '42,p18). This survey is based on reports from 800 of the committees which together represent close to 2,000,000 war workers, or approximately 45% of all employees in plants where the joint committees operate.

A tabulation of the principal labor-management production committee activities, in the order of their popularity, with the percentage of committee participation, shows: Informational and morale-building programs, 94.9%; suggestions, 92.9%; conservation of materials, 87.6%; transportation, 84.9%; absenteeism, 82.4%; care of tools and equipment, 73%; production problems, 72.9%; quality control, 67.4%; training, 48.9%; and nutrition and health, 38.6%.

• Other Activities—Lesser activities include special production problems, such as cost reduction, machine tool capacity, idle time, gas and air and electrical equipment, plant housekeeping, fire protection, plant protection, movies, letters to service men, book collections, employment, music, uniforms, home nursing, Red Cross training, timekeeping, policy,



HERE IS A "CUSTOM-BUILT" RELAY after 59,000,000 Operations

Here is what "custom-building" means in terms of long life and rugged dependability.

This is a Clare Type K d.c. Midget Relay, still in good mechanical and electrical condition after 59,448,200 operations. It has been used for pulsing antenna switching relays, set for 16 operations per second, energizing a secondary relay having a 90 ohm coil operating on 28 volts.

This tiny relay, measuring only $1\frac{1}{2}'' \times 1\frac{1}{4}'' \times 13/16''$ and weighing approximately $1\frac{1}{2}$ ounces, is "custom-built" into a solid, compact unit, employing no anti-vibration springs, no bearings to rattle loose—"custom-built" to do a specific job and to assure the accuracy, ruggedness and serviceability which that job demands.

That principle of "custom-building" relays avoids the rigid limitations of ordinary relays and assures the flexibility of application so important in modern designing. And "custom-building" relays is meeting design requirements of today in such a way that the requirements of tomorrow will develop naturally through the application of the same basic principle.

As you develop new applications, let our engineers "custom-build" the relay that meets your specific requirements. Ask for the Clare catalog and data book. C. P. Clare & Co., 4719 Sunnyside Ave., Chicago, Ill. Sales engineers in all principal cities. Cable address: CLARELAY.

CLARE RELAYS

"Custom-Built" Multiple Contact Relays for Electrical, Electronic and Industrial Use

Heat large areas this NEW way—

DAVO
DIRECT FIRED
HEATERS

THIS direct fired heater is a self contained unit with its own combustion chamber as well as motors and fans to circulate the warm air in the space to be heated. One or more heaters of this type can be arranged to provide correct temperatures for industrial buildings, service camp structures of any size or shape. Such a system is quickly installed and there's a decided saving in money and metals over a central steam heating plant and attendant distributing system.

Oil..

Gas ..

Coal . Types for any application—models for all fuels—Request Bulletin 505—or consult "Sweets".



DAVO CORPORATION

DAVO BUILDING

Heater Department

PITTSBURGH, PA.

Forty-seven Sales Offices in Principal Cities

DO IT BETTER... FASTER... EASIER WITH GLOBE-WERNICKE OFFICE ACCESSORIES

Globe-Wernicke office accessories, filing equipment and supplies enable people to do more work with less effort. They speed up routine and help solve the man-power problem.

These practical and economical "business helps" are sold by leading stationers and office equipment dealers.

"ACCESSO" WOOD DESK TRAYS
Wide hand openings on all four sides and bottom make it easy to handle papers . . . furnished in two sizes.

EVERYDAY FILES
Speeds up filing . . . sorting and classifying. Used in office, factory and home. Several styles, indexed alphabetically, days of month, etc. Two sizes.

BUY MORE
WAR BONDS

A-Z
TABS HAVE THE
NATURAL READING
ANGLE OF 45°

ANGULAR CELLULOID
TAB GUIDES

Easy to see . . . no stooping or bending is required to read the indexing . . . inserts are removable.

"PILOT" . . . FIBREBOARD
CARD INDEX CASES

Made in one and two-drawer styles for 3x5", 4x6", 5x8" and 6x9" cards.



"TUFTEAR" MANILA
FILING FOLDERS

Built for long, useful service . . . all standard styles of tabbing . . . rounded corners. Three weights.

The Globe-Wernicke Co. . . CINCINNATI, O.

radio and news, gifts, sanitation, vaccinations, medical clinic, credit union and assistance with tax returns.

According to the survey, 72% of the labor-management production committees reported establishment of subcommittees. Forty-two percent have organized subcommittees responsible for the transportation of workers; 40% for the operation of suggestion systems, 35% to conduct informational and morale-building programs; and 34% to handle safety matters.

• **Use Initiative**—That committees feel free to exercise judgment in initiating programs is clearly indicated by the survey. The large number of special activities conducted include war bond drives, Red Cross and community chest appeals, blood banks, employee publications, Victory gardens, recreation, rationing, civilian defense, community relations, housing, postwar planning, and in some plants interpretation of National War Labor Board and War Manpower Commission regulations.

LITTLE NWLB UPHELD

The National War Labor Board sustained the order of its sixth regional board in the case of the Austin Co. of Chicago—the first decision it has been called on to make on appeal from a regional ruling (BW—Apr. 10'43, p92).

In underwriting its regional board's award, NWLB has acted to strengthen the authority of these field units and to discourage appeal from their rulings. It has also, because of the issues in the Austin case, extended some of the provisions of the Wagner Act to firms not directly in interstate commerce.

The company, which does all of its business in Illinois, refused to bargain with three A.F.L. unions which claimed to represent its employees because it held it was not legally bound to do so. The regional board conducted an election, the propriety of which the company challenged. When the A.F.L. groups demonstrated majority status, the regional board ordered Austin to bargain with them. It was an appeal from this order, to the national board in Washington, that the company has now lost.

KAISER DECISION CLEW?

Presaging a formal board order to that effect, National Labor Relations Board member John Houston told a congressional committee last week that the Kaiser Shipbuilding Co. dispute can be settled if the A.F.L. and the company agree to strike from their contract its closed shop provision. The A.F.L. immediately refused, and the complaint, pressed by the C.I.O., that the Kaiser closed shop has collusive features will be the subject of an official NLRB ruling and, almost certainly, subsequent court review (BW—Nov. 28'42, p94).

INANCE

Reserves Vanish

New York banks feel pinch resulting from heavy Treasury financing; steady money rates tribute to U. S. controls.

After almost three years of war financing, metropolitan banks show the strain of government borrowing. Since the start of the April loan drive, New York City banks have been getting along with practically no excess reserves. On a few occasions, they even ran a temporary deficiency (chart page 118).

Entwistle Practices—Before the war, such shortages of reserves would have touched off an upset in the money markets. Interest rates would have stiffened as banks tightened up their loan policies and sold off securities to acquire extra reserves. This was what happened in 1937 when the Federal Reserve Board boosted reserve requirements and set off a wave of liquidation. However, the money market today is very different thing from what it was before the war. In putting over the government's war borrowing program, the Treasury and the Federal Reserve Board have strengthened their control over the market until they now have the undisputed power to set and maintain rates. Hence, security prices felt no kickback when New York's excess reserves dropped to the vanishing point. In some respects, the Treasury's problem of control became more complicated, but its power over rates remained as great as ever.

Reserve Reckonings—As war financing got under way, a good many bankers predicted that the only way control authorities could head off a jump in interest rates would be to keep the banking system flooded with excess reserves. Otherwise, they reasoned, the Treasury's new issues would mop up reserves and break the market. At that time, the general idea was that New York banks couldn't get along with less than \$200,000,000 in excess reserves, and that for the country as a whole, the minimum was around \$2,000,000,000.

Since then, the Federal Reserve Board and the Treasury have done a good deal to change the picture. They have been careful to leave the banks plenty of elbow room and to avoid putting any sudden squeeze on them. Three times the board lowered reserve requirements for New York and Chicago banks to offset heavy drains to the interior (BW-Oct. '42, p.90). But ever since the beginning of 1941, they have allowed excess reserves to evaporate gradually. Little

WHEN THE LIGHTS GO ON AGAIN

All
Over
the
World



LEBANON



Stainless and Special Alloy
STEEL CASTINGS

RIght now, the steel casting industry is planning the improvements in alloys and foundry practice that will help America to pioneer the peace.

For—if the victory of democracy and free enterprise is to endure "when the lights go on again all over the world"—America must pioneer in world reconstruction. The makers of steel castings will measure up to this opportunity of peace as ably as they are meeting the emergency of war.

In America, the Lebanon Steel Foundry was among the early pioneers of alloy steel castings. Lebanon foundry practice and Lebanon control methods follow the most approved modern practices. The optical pyrometer check of a melt (illustrated) is one of many tests applied at every possible step of production.

Lebanon Steel Foundry, Lebanon, Penna.

ORIGINAL AMERICAN LICENSEE
GEORGE FISCHER (SWISS CHAMOTTE) METHOD

CARS LOADED FASTER WITH GLOBE HOIST

Sliding Boom Hydraulic Crane Handles Loads in Cramped Spaces



This Globe boom-type oil-hydraulic Hoist speeds loading and unloading of trucks and railroad cars... expedites shipping... saves manpower. The sliding boom permits accurate spotting of loads in cramped interior spaces. For more data on this and other time-saving applications of Globe Lifts and Elevators, write Globe Hoist Company, Queen and Mermaid Lane, Philadelphia.

GLOBE HOIST COMPANY
Philadelphia, Pa.
Des Moines, Iowa

GLOBE
LIFTS and ELEVATORS

HOOPERWOOD COTTON DUCK

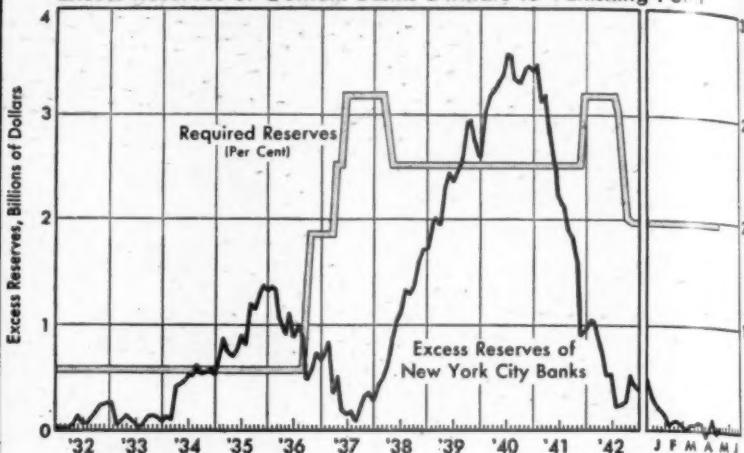
Since 1800
(through six wars)
the HOOPER name has
symbolized highest quality
in Cotton Duck and other
Heavy Cotton Fabrics,
Paper Mill Dryer Felts,
Filter Cloth, Rope and
Sash Cord

WM. E. HOOPER & SONS CO.

New York • PHILADELPHIA • Chicago
Mills: WOODBERRY, BALTIMORE, MD.

NEW YORK FEELS A MONEY PINCH

Excess Reserves of Gotham Banks Dwindle to Vanishing Point



Data: Federal Reserve Board.

Treasury financing puts a heavy load on the New York City banks because the government raises more money in metropolitan districts than it spends there. Excess reserves in New York now stand just about at zero.

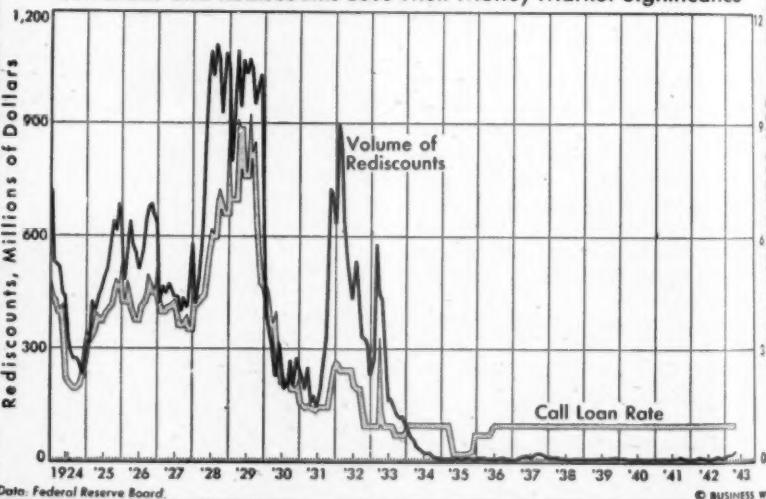
by little they have sold banks the idea of staying fully invested.

• **The Vanishing Point**—During 1942, excess reserves in New York City dropped from around \$1,000,000,000 to about \$450,000,000. In the first three months of this year, they continued to shrink, and when the Treasury opened its April loan drive, New York banks held only \$85,000,000 in excess

reserves. On Apr. 14, they showed a deficiency of \$30,000,000, and on May 5, they were \$10,000,000 short of requirements. The negative figures do not mean that the banks were violating reserve rules, because requirements are estimated on the basis of weekly averages, and a bank can be deficient on a single day without going under for a week. Nevertheless, daily figures show

GUIDEPOSTS OF ANOTHER DAY

Call Loans and Rediscounts Lose Their Money Market Significance



Data: Federal Reserve Board.

Now that the Treasury has taken over control of the money markets, two ancient barometers have become obsolete. In spite of the current shortage of excess reserves in New York, rediscounts show little change. Banks prefer to adjust their reserve position by selling Treasury bills. Similarly, the call loan rate, once the most highly sensitive indicator of market conditions, has not varied since banks agreed to peg it at 1%.

close to the line New York banks working. Outside New York, banks still retain healthy cushion of excess reserves, but total is dropping steadily. On May 1, excess reserves of all member banks added up to \$1,730,000,000. This compares with roughly \$3,000,000,000 a year ago and with a peak of almost \$4,000,000,000 in 1940.

Change in Policy—Reserve policy of New York banks has worked all the way around the circle and is now back where it was before the depression. Before 1932, no bank ever thought of getting onto excess reserves. The idea was to stay invested to the limit and meet sudden demands for additional reserves either by rediscounting or by selling securities. In those days, city banks used to keep their money trucks rattling between their offices and the reserve bank, adjusting their balances down to the last dollar.

Banks got the excess reserve habit in the late 'thirties, when open market purchases of the reserve banks and tremendous imports of gold gave them more funds than they knew how to employ. Finding it convenient to work on a wide margin, they gradually became so intent on keeping excess reserves that they preferred to liquidate portfolios rather than stay fully invested.

Lower Margins—Government officials think that for the rest of the war metropolitan banks will keep going without anything more than required reserves. Country banks probably will insist on keeping a moderate cushion, since they can't send a truck around to the federal office in a moment's notice, but they won't demand anything like the amount they held a year ago.

This reserve policy is reminiscent of pre-depression markets, but the similarity ends there. So far, few banks have resorted to rediscounting, the traditional method of obtaining additional reserves to meet requirements. Instead, they have sold off part of their great portfolios of treasury bills.

Effect of Rediscounting—This helps explain why the shortage of reserves has not brought a sharp rise in money rates, for rediscounting served as the machinery through which a tight reserve position operated on the market. A bank that needed extra reserves would discount some of its loans at the reserve bank. This provided the necessary cash, but it forced the bank to charge a rate that would cover the cost of rediscounting and leave some profit on its business. By varying the rediscount rate, the reserve banks could exert a good deal of pressure on the market in either direction.

With the growth of excess reserves, discounts dropped out of the picture. Now that reserves are shrinking, the banks find it cheaper to use Treasury bills to adjust their balances. The Fed-



THE LAD FROM THE OFFICE IS SAFE IN PORT AGAIN!

You never expected a reward when you turned in that old garden hose... and gave to the scrap the old rubber mat you'd always managed to trip over.

But when the lad from the office wrote home: "Didn't bother me much in the water for [redacted] days. Kept warm in a new rubber 'Zoot Suit'" —you got your reward a hundred-fold.

Rubber "OVERBOARD"
Life Saving Suits by Goodall are protecting thousands of American merchant seamen. A man gets into one with his clothes and shoes on... pulls the neck up snug where it's comfortable. Then he jumps into the water and floats in an upright position until rescued.

The rubber you save and the bonds you buy are making these marvels possible.

KEEP HIM FLOATING— BUY WAR BONDS



GOODALL RUBBER PRODUCTS

GOODALL RUBBER COMPANY

PHILADELPHIA, NEW YORK, BOSTON, PITTSBURGH, CHICAGO, WASHINGTON, D. C.

GOODALL RUBBER CO. OF CALIFORNIA

GOODALL RUBBER CO. OF TEXAS

HOUSTON

LOS ANGELES, SAN FRANCISCO, SEATTLE, GALT LAKE CITY

THE WHITEHEAD BROTHERS RUBBER COMPANY

FACTORY: TRENTON, N. J. Est 1870 73 Years of "Know How" Our Most Valuable Commodity.

Landmarks of business progress



IN 1709
Poleni
of Padua
constructed
the first
calculating
machine operat-
ing on the pin-wheel principle.
It was the forerunner of early
Marchants made 33 years ago.

(Illustration figurative only)

Today

Among modern calculators
Marchant sets new standards of
speed and accuracy with

20 POINTS OF SUPERIORITY

Sale subject to
priority restrictions



Point
14

Simplified Automatic Division

Though calculators are mostly used for multiplying, it is also important that they give a good account of themselves when dividing.

In but four easy steps Marchant now does $1921 + 3456 = 5358$ in only six seconds, and this includes the time required for entering the amounts into the calculator. Even the Marchant of 10 years ago, fast for its day, needed more than twice this time for the same problem.

The secret? Operator hand-travel has been scientifically reduced, carriage shifts and dial clearances are automatic, and the dials keep ahead of the fastest-thinking brain.

MARCHANT
SILENT-SPEED
Calculators

THIRTY-THIRD YEAR

MARCHANT Calculating Machine Company
Home Office: Oakland, California, U. S. A.
SALES AGENCIES AND MANUFACTURER'S
SERVICE STATIONS GIVE SERVICE EVERYWHERE

THE MARKETS

The stock market has seesawed through another of its resting periods only to break away again on the upside. First signal came in Tuesday's last hour when volume picked up and prices spurted; the upswing was widened in Wednesday's more active session which saw the averages punch convincingly through the May 6 high.

• **Brokers' Reaction**—At the beginning of the week, volume had tapered off. On Monday and Tuesday, turnover on the Big Board dropped below 1,000,000 shares for the first time this month. Even so, few brokers complained about the amount of business they were getting. Most of them found quick consolation by remembering what the market was like at this time last year. In May, 1942, the entire month's turnover on the New York Stock Exchange was only 7,229,000 shares. On the best day, a scant 560,000 shares changed hands, and on the worst (excluding Saturdays), volume was only 216,000.

Percentagewise, trading on the New York Curb has increased even faster than the Big Board's business. A week ago Monday, the Curb chalked up a turnover of 1,259,000 shares, the biggest day since October, 1937.

• **A. T. & T. Dividend Helps**—American Telephone & Telegraph came through this week with its traditional \$2.25 quarterly dividend. Mother Bell's determination to stick by the \$9 annual rate is legendary, and everyone in Wall Street was expecting the news. Nevertheless, the declaration gave a helping hand to the blue chips generally.

The rail department has been attracting a good deal of the market's attention lately, and three or four rails regularly turn up near the top of the list of most active stocks. Some traders have been

watching nervously to see if the Tunisian victory would put a damper on rail prices, but so far, the average hasn't seemed to suffer from the scattered talk of an early peace.

• **Preferred Recapitalization**—Nickel Plate's issues, both preferred and common, have been climbing into a succession of new highs in spite of the fact that the road's management insists that dividends are out of the question for the time being. Persistent rumors say Nickel Plate is going to do something about the accumulated arrears on its preferred which will amount to \$72 a share by July 1. Theoretically, this would clear the way for some sort of payment on the common. However, Nickel Plate's biggest immediate problem is the \$21,000,000 maturity in 1947.

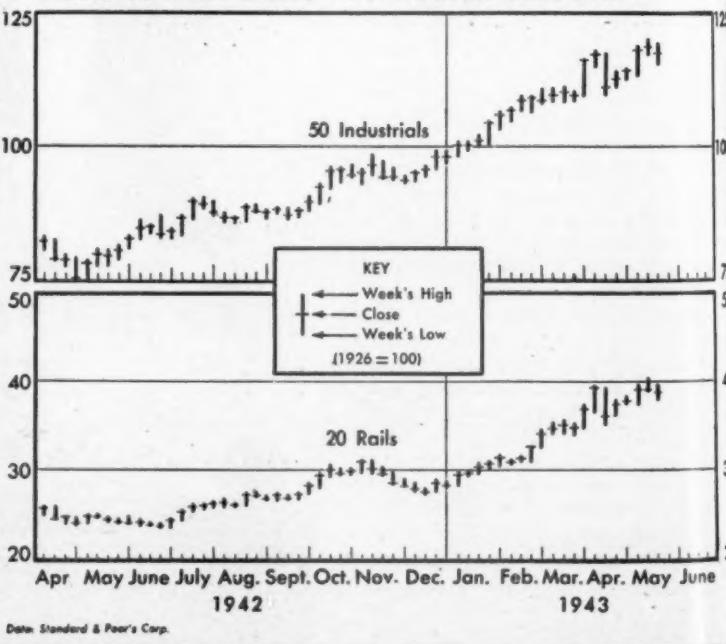
New York Central presented its stockholders with a 50¢ dividend last week following up its \$1 declaration at the end of 1942. Although this cuts share holders in for a slice of wartime earnings, Central still is putting most of the extra income into debt retirement. Last year, for example, it retired \$54,536,000 of obligations (BW-Mar. 6 '43, p94).

Security Price Averages

	This Week	Week Ago	Month Ago	Year Ago
Stocks				
Industrial	117.6	118.7	112.7	71.4
Railroad	38.9	39.2	37.4	24.5
Utility	46.9	47.6	45.5	28.5
Bonds				
Industrial	115.6	116.3	116.0	107.2
Railroad	100.1	100.2	97.9	87.5
Utility	113.7	113.4	113.6	102.5
U. S. Govt.	111.9	111.7	110.8	110.8

Data: Standard & Poor's Corp. except for government bonds which are from the Federal Reserve Bank of New York.

COMMON STOCKS—A WEEKLY RECORD



al Reserve banks have a standing offer to buy an unlimited amount of bills at 1%. A bank that needs extra funds simply sells bills to the federal.

The Present Controls—Theoretically, the money market is still free to fluctuate, but the fact is that the Treasury and the Federal Reserve Board have established a rate structure for government securities (BW-Dec. 5'42, p96). For the time being at least, they have all the power they need to make it stick. Commercial banks will buy as much as they are told as long as they are provided with enough reserves to make it possible. If the market ever starts to wobble, the Federal Reserve board can support it with almost unlimited purchases.

Traditional barometers of money market conditions mean little today. Rediscounts no longer serve as a signal of coming tension. The call loan rate, once the most sensitive indicator in the market, is pegged at 1% by agreement among the banks and the New York Stock Exchange. The market for commercial paper has become so narrow that the rate no longer signifies anything. In short, the money market does what the Treasury tells it. Rates are technically free, but as long as the government is prepared to give its issues unlimited support, there is no way they can tighten up.

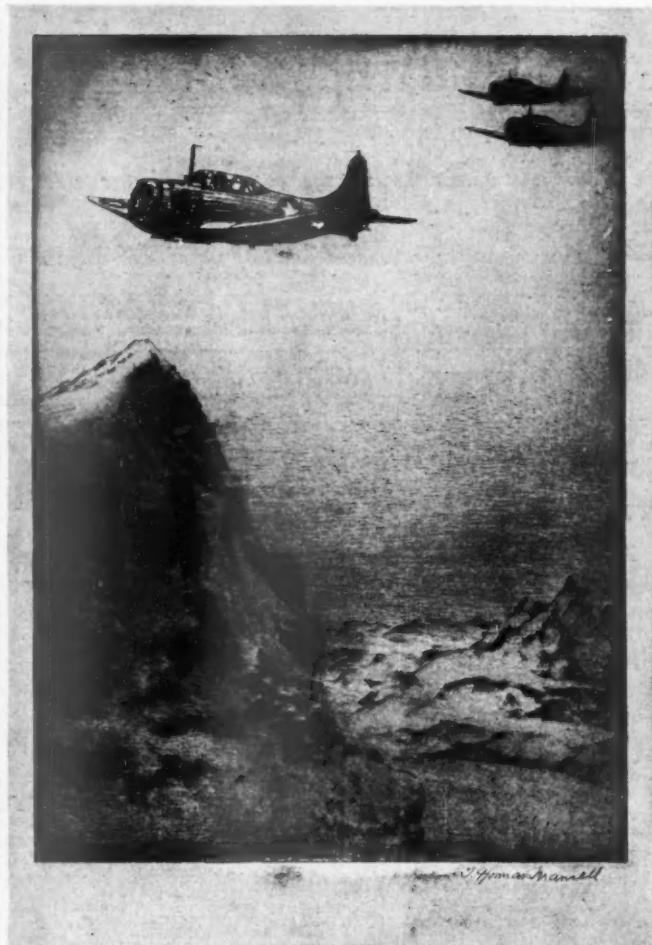
Treasury Must Watch—This doesn't mean that the Treasury can ignore the various factors that used to be so important in the money market. For instance, it can't squeeze the New York banks so hard that they will undertake drastic liquidation. The emphasis on selling bonds to country banks has deprived New York of some of the importance it once had in finance, but metropolitan banks still have the power to jolt the market badly if they start unloading.

With reserves running low in New York, the authorities will have to watch closely to see that they don't press the big banks too hard. Undoubtedly, they will do some careful buying in the open market whenever the situation seems to call for it. Eventually, they may reduce reserve requirements, but most bankers think this isn't likely anytime soon.

BAIT FOR SMALL BANKS

In its last offering of 91-day bills, the Treasury tried a new stunt to coax in subscriptions from country banks. All orders for \$100,000 or less were allotted in full at a fixed price of 99.905, which gave a yield of 1%, the maximum rate for bills.

Idea behind this move is to make bills more attractive to banks outside the metropolitan money markets. In the past, many country banks have refused to bother with bills because the bidding procedure was too complicated and the yields were too low.



(Below) The CECOSTAMP Department in large West Coast Aircraft Factory

CECOSTAMPS HELP SPEED 'EM ON THEIR WAY

Swarming over the roof of the world, American-built planes are carrying on the traditional determination of our country to resist aggression, by peaceful means if possible, by force to the utmost if necessary. Part of the job of producing enough planes to stop the Axis is the production of sheet metal parts of light weight, high strength alloys, parts that must be formed rapidly and without reduction in section. The success of the Chambersburg CECOSTAMP in doing this job is reflected in the increasing numbers in practically every aircraft factory and in the increasing number of parts that are being made on the CECOSTAMP.



CHAMBERSBURG ENGINEERING COMPANY • CHAMBERSBURG, PENNA.

CHAMBERSBURG
CECOSTAMP

ADVERTISERS IN THIS ISSUE

Business Week—May 22, 1943

ACE MANUFACTURING CORP.	30	INTERNATIONAL HARVESTER CO., INC.	45
Agency—GEAT & ROGERS		Agency—AUBREY, MOORE & WALLACE, INC.	
AIR EXPRESS, DIVISION OF RAILWAY		THE NATIONAL NICKEL CO., INC.	9
EXPRESS AGENCY, INC.	72	Agency—MARCHALIC & PRATT CO.	
Agency—ERWIN, WARE & CO.		JACOB'S AIRCRAFT ENGINE CO.	101
AIRTEMP DIVISION OF CHRYSLER CORP.	69	Agency—ALAN P. LISTER ADVERTISING	
Agency—GEAT & BEMENT, INC.		JENKINS BROS.	93
AMERICAN FELT CO.	98	Agency—HORTON-NOTES CO.	
Agency—J. M. BARSTOW CO.		THE KAYDON ENGINEERING CORP.	31
AMERICAN PHOTOCOPY EQUIPMENT CO.	37	Agency—KLAU-VAN PIETERSOM-DUNLAP ASSOC., INC.	
Agency—THE PHIL GORDON AGENCY		LAMSON CORP.	27
AMERICAN TELEPHONE & TELEGRAPH CO.	12	Agency—BARLOW ADVERTISING AGENCY, INC.	
Agency—N. W. AT&T & SON, INC.	40	LEBANON STEEL FOUNDRY	117
AMPRO CORP.		Agency—WHITE-WRIGGINS, INC.	
Agency—IRVING J. ROSENBLUM ADV. AGENCY		LIBBEY-OWENS-FORD GLASS CO.	23
ANKER-MOLTH MANUFACTURING CO.	50	Agency—FULTON & SMITH & ROSS, INC.	
Agency—BEEBE AND WALDIE AND BRIGGS		LYON METAL PRODUCTS, INC.	108
ASSOCIATION OF AMERICAN RAILROADS	97	Agency—SWARZ ADVERTISING, INC.	
Agency—ARTHUR KUDNER, INC.		MAINE DEVELOPMENT COMMISSION	48
THE AUTOCAR CO.	90	Agency—N. W. AT&T & SON, INC.	
Agency—GEAT & ROGERS		MANNING, MAXWELL AND MOORE, INC.	94
AVERY ADHESIVES	86	Agency—BRIGGS & VẶLET, INC.	
Agency—JOHN H. BROWARD CO.		MARCHANT CALCULATING MACHINE CO.	120
BANTAM BEARINGS CORP.	111	Agency—BRIDGEMAN, DAVIS & STAFF	
Agency—HAROLD ADVERTISING CORPORATION		McGRAW-HILL BOOK CO., INC.	114
BLACKHAWK MFG. CO.	95	McQUAY-NORRIS MFG. CO.	35
Agency—KLAU-VAN PIETERSOM-DUNLAP ASSOC., INC.		MERCURY MANUFACTURING CO.	123
THE BLUE NETWORK.	48	Agency—O'GRADY-ANDERSEN	
Agency—FOOD, CONN. & BUILDING, INC.		MICRO SWITCH CORP.	82
BRYANT CHUCKING GRINDER CO.	41	Agency—J. R. HAMILTON ADV. AGENCY	
Agency—THE L. LOUDON, ADV.		MONROE CALCULATING MACHINE CO.	47
CARDOX CORP.	71	Agency—ALBERT & RICHARDS CO.	
Agency—EVANS ADVERTISING, INC.		MUEHLHAUSEN SPRING CORP.	24
THE PHILIP CAREY MANUFACTURING CO.	26	Agency—CARTER, JONES AND TAYLOR	
Agency—THE C. B. BARK CO.		NASH-KELVINATOR CORP.	3rd Cover
CHAMBERSBURG ENGINEERING CO.	121	Agency—GETTER, CORNELL & NEWELL, INC.	
Agency—WILLARD G. MYERS ADVERTISING		NATIONAL ASSOCIATION OF MOTOR BUS OPERATORS	87
CHICAGO, BURLINGTON & QUINCY RAILROAD	44	Agency—BRAUNMUS & HOFFMAN, INC.	
Agency—REINHOLD-ELLIS-YOUNGGREEN & FINN, INC.		NEW HAMPSHIRE STATE PLANNING & DEVELOPMENT COMM.	42
C. P. CLARE & CO.	115	Agency—GLASER ADVERTISING, INC.	
Agency—J. B. HAMILTON ADVERTISING AGENCY		OHIO TOOL CO.	89
COLUMBIA CHEMICAL DIV., PITTSBURGH PLATE GLASS CO.	36	Agency—MEERMANS, INC.	
Agency—KETCHUM, MACLEOD & GROVE, INC.		THE OSBORN MANUFACTURING CO.	77
CONNECTICUT GENERAL LIFE INSURANCE CO.	44	Agency—THE GRISWOLD-EHRLICH CO.	
Agency—EDWARD W. HORSTHORN & CO.		PITNEY-BOWES POSTAGE METER CO.	75
COOPER-BESSEMER CORP.	25	Agency—L. E. McGIVRN & CO., INC.	
Agency—THE GRISWOLD-EHRLICH CO.		PORTER-CABLE MACHINE CO.	102
CRÖCKER-WHEELER ELECTRIC MFG. CO.	79	Agency—BARLOW ADVERTISING AGENCY, INC.	
Agency—ROY S. DURSTINE, INC.		RADIO CORPORATION OF AMERICA	32, 33
THE DELTA MANUFACTURING CO.	109	Agency—J. WALTER THOMPSON CO.	
Agency—IRVING J. ROSENBLUM ADVERTISING CO.		RELIANCE ELECTRIC & ENGINEERING CO.	28
DODGE MFG. CORP.	37	Agency—MELDRUM AND FEWSMITH, INC.	
Agency—KLAU-VAN PIETERSOM-DUNLAP ASSOC., INC.		REPUBLIC RUBBER DIVISION	
DRAYCO CORP.	116	LEE RUBBER & TIRE CORP.	2
Agency—BAT BROS. ADVERTISING		REPUBLIC STEEL CORP.	85
ELECTRIC STORAGE BATTERY CO.	4	Agency—MELDRUM AND FEWSMITH, INC.	
Agency—GEAR-MARSTON, INC.		RESINOUS PRODUCTS & CHEMICAL CO.	61
ERIE RAILROAD CO.	83	Agency—NEWELL-EMMETT CO.	
Agency—THE GRISWOLD-EHRLICH CO.		RISING PAPER CO.	46
ETHYL CORP.	6	Agency—THE MATHERS, INC.	
Agency—BATTEN, BARTON, DURSTINE & OSBORN, INC.		ROGERS DIESEL & AIRCRAFT CORP.	49
FAIRBANKS, MORSE & CO.	39	Agency—RICHARD & CO.	
Agency—HENRI, HURST & McDONALD, INC.		SANDERSON & PORTER	70
FELT & TARRANT MANUFACTURING CO.	21	Agency—CALKINS & HOLDEN	
Agency—N. W. AT&T & SON, INC.		SCOTT PAPER CO.	10
THE FOXBORO CO.	88	Agency—J. WALTER THOMPSON CO.	
Agency—HORTON-NOTES CO.		SOCONY-VACUUM OIL CO., INC.	2nd Cover
GENERAL BOX CO.	78	Agency—COMPTON ADVERTISING, INC.	
Agency—THE BUCHEN CO.		THE STANDARD REGISTER CO.	99
GENERAL ELECTRIC CO.	104, 105	Agency—KIRSCHER, LITTLE, HELTON & COLLETT, INC.	
Agency—J. M. BARSTOW CO.		STATE OF NORTH CAROLINA	106
GHOST TOWN NEWS.	112	Agency—EASTMAN, SCOTT & CO., INC.	
Agency—STELLER-MILLAR		STEN-O-AIDE, INC.	112
GLOBE HOIST CO.	111	Agency—STREPHES VAN HUE, INC.	
Agency—R. E. LOVEKIN CORP.		B. F. STURTEVANT CO.	91
THE GLOBE-VERNICK CO.		Agency—BICKARD & CO.	
GOODALL RUBBER CO., INC.	116	SYLVANIA ELECTRIC PRODUCTS, INC.	67
Agency—DOBBINS & CO.		Agency—ARTHUR KUDNER, INC.	
THE B. F. GOODRICH CO.	1	TAYLOR INSTRUMENT COS.	73
Agency—THE GRISWOLD-EHRLICH CO.		Agency—BATTEN, BARTON, DURSTINE & OSBORN, INC.	
GOODYEAR TIRE & RUBBER CO., INC.	119	THE TORRINGTON CO.	110
Agency—DOBBINS & CO.		Agency—HAROLD ADVERTISING CORPORATION	
HEIN-WERNER MOTOR PARTS CORP.	112	UNITED STATES TREASURY DEPT.	113
Agency—ARTHUR KUDNER, INC.		WARREN WEBSTER & CO.	8
WM. E. HOOPER & SONS CO.	118	Agency—WILLIAM JENKINS ADVERTISING	
Agency—MCCLAIN ORGANIZATION, INC.		THE WATSON-STILLMAN CO.	76
HYCAR CHEMICAL CO.	3	Agency—O. S. TYSON & CO., INC.	
Agency—THE GRISWOLD-EHRLICH CO.		THE WEATHERHEAD CO.	4th Cover
HYDE PARK BREWERY ASSOCIATION, INC.	42	Agency—MASON, INC.	
Agency—YOUNG & RUBICAM, INC.		WEBSTER-BRINKLEY CO.	103
INDUSTRIAL TRUCK STATISTICAL ASSN. NO. 70		Agency—PACIFIC NATIONAL ADV. AGENCY	
Agency—FEDERAL ADVERTISING AGENCY, INC.		WESTINGHOUSE ELECTRIC & MFG. CO.	
		Agency—FULTON, SMITH & ROSS, INC.	80, 81
		WESTINGHOUSE AIR BRAKE CO.	43
		Agency—KETCHUM, MACLEOD & GROVE, INC.	29
		WHITING CORP.	
		Agency—THE FISCHER CO.	
		WHITNEY CHAIN & MFG. CO.	22
		Agency—SUTHERLAND-ABROTT	
		WICKWIRE SPENCER STEEL CO.	96
		Agency—FULLER & SMITH & ROSS, INC.	

Wire Merger Set

Obstacles to absorption of Postal by Western Union have diminished; details of plan now up to FCC, state officials.

Western Union and Postal Telegraph still have to clear several hurdles before they complete their long awaited merger, but the manpower shortage already has taken care of the biggest one. As things look now, Western Union will be able to absorb all Postal employees into its system without much trouble. Hence, the employment safeguards of the merger legislation (BW-Dec. 5 '42, p90) won't be as troublesome as they once seemed. • Provision for Stocks—In the plan presented to the Federal Communications Commission, the two telegraph companies propose complete integration of all their domestic land lines. Postal would turn over all assets to its former rival, receiving a new Class B Western Union stock in exchange. Present owners of Western Union common would turn in their shares for a new Class A stock, entitled to a \$2 dividend before the B stock could get anything. One year after the deal went through, B stockholders could convert into A stock at the ratio of three A for five B.

The plan still has to get approval from the FCC and various state regulatory agencies. Western Union also has to divest itself of its interest in international communications as required by the merger legislation.

• Speed is Desirable—However, it isn't likely that government authorities will slow the process any more than they have to. Postal already is in hock to the Reconstruction Finance Corp. for more than \$9,000,000, goes in deeper with each month of independent operation.



Signing of the merger agreement by Western Union's president, Albert Chinlund (right), and Postal Telegraph's chairman, Edwin Williams (left), starts the two big telegraph companies on the road to consolidation.

THE TRADING POST

The Cycle of Invention

Professor Fayette B. Shaw, acting chairman, Department of Economics, the De Paul University College of Commerce, writes as follows:

I have read with interest the comment of William C. White of Schenectady on things that are "really new" on p. 107 of your May 8th issue. Perhaps discouragement to individual initiative and corporate industrial daring plus depression have had a deadening effect on development of things "really new." But I doubt that. It seems to me that the great scientists are as busy as ever, and that, whatever public policy and business conditions may be, the big, far-seeing corporations are as active as ever in developing new things. But progress depends less upon the great individual inventors like Edison, Bell, McCormick, and the like than upon increments of effort by multitudes of armies of qualified scientists working anonymously.

But invention is a social process that has no rule or regularity about it. It seems to shape up this way: There will be a period of corporative stability during which progress seems slow, but takes the form of unspectacular steps in improvements. Then comes a change. Many people, working on many things, break through this crust of social custom, bringing forth, almost in a rush, new things which alter the lives of society. Then these new forces recede as before, and the gentler, less spectacular movement of slow change takes place. Then the uprush occurs again.

Space and time forbid examples, but Mr. White could probably find them. But up to this war, we have been in one of the calmer periods, when we have built on the things he mentions—electricity, telephone, phonograph, automobile, airplane, and radio. Reports current indicate many processes of invention speeded up during this war. Dark hints are dropped of spectacular postwar developments that will astound us. No, invention goes as before. I can hardly wait for my helicopter. Will it be driven by power transmitted by radio and not by an engine in the helicopter? I can hardly wait to see.

Annual Reports—1942 Model

I wish I had time to read more annual reports. That was not always true. Time was when the annual report was a highly confidential document, a device for concealing information or, at best, a dose of mighty dreary reading.

But the old annual report has been giving way to the new. Maybe we cannot yet class many of them among the

"best sellers," but we must concede that the best of them are informative in content and stimulating in form. Some excellent examples have recently come to me. Naturally I can't talk about even a small fraction of them. But I have been impressed by three of them—one from a railroad company, another from a manufacturer, and a third from a public utility. Each does an exceptional job in its own domain.

The 1942 report of the Missouri-Kansas-Texas Railroad Co. goes all out for charts, but not just the ordinary pie-charts and bar-charts of the statistician. They are rich in color, some of them so skillfully tied in with the system map that you never can forget you're reading about the Katy. Graphically they portray—and portray is the word—the status of improvements in permanent way, service of rolling equipment, traffic density, and other operating factors normally buried in the statistics. This Katy report leaves you with an awareness of the railroad as a dynamic thing.

In a 98-page volume of pocket size, General Motors offers, through text, tables, charts, pictures, and thumbnail sketches, a world of data on its products, operation, and performance. It offers chapters on the wartime economic and operating problems of the corporation and discusses industrial relations, management costs, postwar adjustments, and other pertinent factors. Throughout the report, informative items are dropped in to describe the details of new machines, methods, and materials developed by the divisions of the corporation to meet war requirements. These, in themselves, are an education in the adaptation of American industry to war. Most impressive display, perhaps, is a double-page chart showing the shift, quarter by quarter, of General Motors' activities from civilian to war production.

Electric Bond & Share Co., in reporting its 1942 operations, offers a rather complete although brief survey of the problems that now confront the public utilities, not only from the impact of war, but also because of governmental taxation and regulatory policies. Naturally the effect of the Holding Company Act comes in for analysis, giving point to the company's contention that if government projects are to be used as "yardsticks" by which to measure the performance of private industry, both must be treated substantially alike.

These are but typical of the many corporate reports that now accept frankly a responsibility to interpret the performance of the company, not alone in terms of its stockholders' interests, but also with an eye to those of its employees and the public generally. W.C.



ONE MAN

DOES THE WORK OF MANY

With the Mercury "Trackless Train" one man can do the work of many—and deliver more tonnage in less time, for less cost.

Keeps loads rolling because "The Trackless Train" keeps them on wheels, ready for long or short hauls, free of any fixed track. The tractor can be detached for other jobs while the trailers are loaded or unloaded. No lost time . . . no wasted motion!

Regardless of the size of the load, "The Trackless Train" takes it simply by adding or removing trailers.

Learn how easy you can fit "The Trackless Train" into your present materials handling system. Write today for your copy of the Mercury Ready Reference Catalog.



Mercury "Tug" electric tractor pulls long train of "A-310" trailers.

Mercury

TRACTORS / TRAILERS / LIFT TRUCKS

MANUFACTURING COMPANY

4146 S. HALSTED STREET, CHICAGO, ILL.

THE TREND

THE PRICE POLICEMAN'S JOB

Once again, the Office of Price Administration is playing the key role in the Administration's anti-inflation strategy. To still labor's clamor for wage boosts, and to forestall the farm demands that would inevitably follow such boosts, OPA is now attacking the cost of living through (1) a rollback of official prices by the use of subsidies, and (2) a rollback of actual prices to official levels by a campaign of enforcement. Right now, the emphasis must be on compliance; subsidies won't reduce actual prices unless ceilings are enforced.

• OPA's problem is that consumers can afford to pay more than the ceiling prices. But in the long run, the thing that counts is not what consumers are able to pay, but what they are willing to pay over—or under—the retail counter. OPA's part of the job is to reduce willingness to pay below ability to pay.

If the hot money which represents current surplus ability to pay were automatically translated into spending, the price agency's job would be impossible to begin with. However, hot money is not spent automatically, but because consumers want to buy more goods and services. It is true that if they can't buy enough they will tend to bid up what is available. But, they won't even do that if OPA can make such a scramble pointless—by regulatory measures.

The General Maximum Price Regulation has held living costs at least partially in check. Retailers—and wholesalers and producers—big enough to be easily policed and prosecuted have held the line. Where consumers have been paying above-ceiling prices, it has been because they have had no other recourse. Ceilings were too jumbled to be checked up on. Now OPA hopes that housewives can understand dollar-and-cents ceilings and will refuse to pay more. In a measure, that hope has already been substantiated; in some coal mining towns that OPA has surveyed, violations of General Max. ceilings ran up to 40%, but violations of dollar-and-cents pork ceilings came to only 15%.

• However, dollar-and-cents ceilings can't be a complete solution. So long as there are some buyers willing to pay illegal prices, and many more able to pay, black markets work to foist the standard of willingness of the few upon the many. Examine the violations in meat. Some retailers took advantage of incomprehensible ceilings to charge what the traffic would bear. Naturally, some wholesalers joined in. And packers difficult to police—some existing ones, and many new, typically "black market" operators—began to charge and pay more than the ceiling. This diverted supplies away from legal channels, whereupon honest wholesalers were forced to deal illegally and reputable retailers to follow suit. Lured by consumers' ability to pay, or driven by suppliers' ability to charge, more and more dealers went into the black.

Now, of course, ration books and simple ceilings make evasion more difficult. Yet, there are loopholes. In countries with flourishing black markets, such as France, a regular illicit trade in ration books accompanies ceiling violations. Even in this first week of general dollar-and-cents ceilings on meat, newspapers are reporting the ingenuity and inventiveness of violators.

Actually, good administrative procedures cannot substitute for enforcement; they are merely the prerequisites for enforcement. OPA is banking on retailer education, increased official policing, volunteer consumer-group inspection, and public cooperation to back up its new regulations.

• Yet we have seen all too clearly that black markets are cancerous growths. Controls that work in incipient stages are useless once the disease begins to ravage the body economic. Once a few persons learn how to violate regulations, or even how to bribe or circumvent inspectors, more and more consumers and distributors are forced into illegal practices. The battle against the black market cannot cease; rather, efforts to combat it must inevitably become more intense and more complex. This would be so even if hot money were not constantly increasing; it is all the more so because the inevitable trend of war is continuously to widen the inflationary gap.

What's more, control over the black market in meat does not automatically mean control over the black market in poultry or potatoes—or in shoes, shirts, hard liquor, gasoline, clothing repair, and other goods and services. Indeed, given excess ability to pay in general, regulation of the willingness to pay for one commodity immeasurably increases the willingness to pay for commodities less tightly controlled.

In short, there is no easy way out of inflation through regulatory control. Failing a fundamental attack upon hot money, we must constantly extend and revise ration and ceiling devices and expand enforcement machinery.

• Experience proves that—economically and politically—we cannot afford widespread illegal advances in living costs. But political experience seems to prove complete control over hot money an impractical hope—as impractical as the hope of complete control of black markets. To be practical in our fight against inflation, we must make the best of a double attack: Weigh the relative political and economic costs and benefits of the OPA regulatory approach against the Treasury's taxation approach, choose how much to rely on each, and determine to translate that choice into action.

(This is the second of a series of Trends on the problems that business management must weigh in the new "inflation crisis." A third will appear in an early issue.)

The Editors of Business Week

Business Week • May 22, 1943

make
In
ence,
ling
and
the

sub-
sites
ion,
in-
new

kets
ient
the
late
pec-
are
lack
must
This
ntly
able
gap.
neat
mar-
uor,
ices.
tion
usur-
less

ough
pon
tion
nery.

lly-
ving
plete
prac-
kets.
must
ative
DPA
ap-
nine

prob-
new
(su.)
Week
1943

JSIN
EEK
DE>